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GOLETA SEWER OUTFALL
STABILITY TESTS

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Charles K. Sollitt

Large scale laboratory tests were conducted to determine the stability of armor rock covering an existing sewer outfall for the city of Goleta, California. The testing consisted of two phases: phase one modeled the existing condition of the outfall and phase two modeled the outfall with proposed armor rock to provide additional stability. Wave tests were conducted in prototype water depths ranging from 15 to 45 feet at scale ratios ranging from 1:4.52 to 1:15.5. Prototype wave conditions included both random and monochromatic waves with periods ranging from 14 to 22 seconds and wave heights ranging from 4 to 25 feet. Wave data were taken utilizing seven resistive wave gages, two acoustic current meters and a sonic wave profiler. In addition, the test runs were video recorded from two underwater and one above water locations. Test conditions for each test run are presented in tabular form.

Wave conditions were analyzed by employing Fourier analysis to determine sine and cosine amplitudes of each frequency component, which were interpreted to separate the incident and reflected waves. Results are summarized in tabular form at both model and prototype scale. Significant hydrodynamic properties are

presented graphically in non-dimensional form and compared to theoretical or empirical models. Similar trends were observed in both monochromatic and random wave tests. Breaking wave heights were found to be within 75% of the theoretical maximum wave height. Reflection coefficients were found to decrease and transmission coefficients increase with increases in relative water depth. Non-dimensional velocities were found to decrease with increasing wave steepness and increasing relative depth. Similar hydrodynamic trends were noted in the existing and proposed armor configurations. Selective removal of fines from the rock armor occurred during the wave tests. The proposed armor experienced less removal of fines than the existing armor.

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Goleta Sewer Outfall Stability Tests

by

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Symbol	Definition
A_t	Cross-sectional area of the model
F	Freeboard
H	Wave height
H_B or H_b	Breaking wave height
H_{mo}	Zero-moment wave height
H_{rms}	Root mean square wave height
H_S	Significant wave height
L_o	Deep water wave length
L_p	Wave length at the model
K_r	Reflection coefficient
K_t	Transmission coefficient
N_s	Stability number
S_r	Specific weight of rock
SF	Scale factor
$S(f)$	Energy density spectrum
T	Wave Period
T_P	Wave period at spectral peak
U_{mo}	Zero-moment horizontal velocity
V	Velocity
W	Weight
Z	Vertical height from SWL
d	Depth
d_s	Water depth at model
d_1	Depth to top of rubble structure
f	Frequency
f_P	Frequency at spectral peak
g	Gravitational acceleration
h_c	Model crest height
l	Length
m	Mass or subscript to indicate model
p	Subscript to indicate prototype
t	Time
α	Variable placeholder
β	Variable placeholder
γ	Peak enhancement factor
ΔV	Change in velocity
ΔZ	Change in vertical height
ρ	Density
σ	Empirical spectral coefficient

GOLETA SEWER OUTFALL STABILITY TESTS

1.0 INTRODUCTION

1.1 Background

This report summarizes wave experiments conducted to evaluate the stability of armor rock covering an existing marine sewer outfall. The subject of this study is the Goleta Sanitary District ocean sewer outfall, located in the city of Goleta, California, approximately nine miles west of Santa Barbara. Figure 1.1 indicates the location of Goleta. The outfall extends 5800 feet from shore towards the Santa Barbara Channel. It is constructed of 39 inch diameter welded steel pipeline and has a tar and concrete coating which produces an overall outside diameter of 44 inches. Dispersion of effluent is through a 280 foot diffuser section into 85 feet of water, relative to mean lower low water (MLLW). The primary outfall section of concern extends approximately 3600 feet in water depths ranging from 13 to 47 feet with an average bottom slope of 0.00945.

The Goleta outfall was constructed in 1965. Existing armoring on the outfall consists of one layer of Class D armor rock, with a median weight of approximately 0.5 lb, which was placed during construction and one layer of Class C armor rock, with a median weight of approximately 5 lb, which was placed over the original armoring in 1981. The specific gravity of the existing armor rock is 2.60. The total existing armoring reaches an elevation of 8 to 12 inches
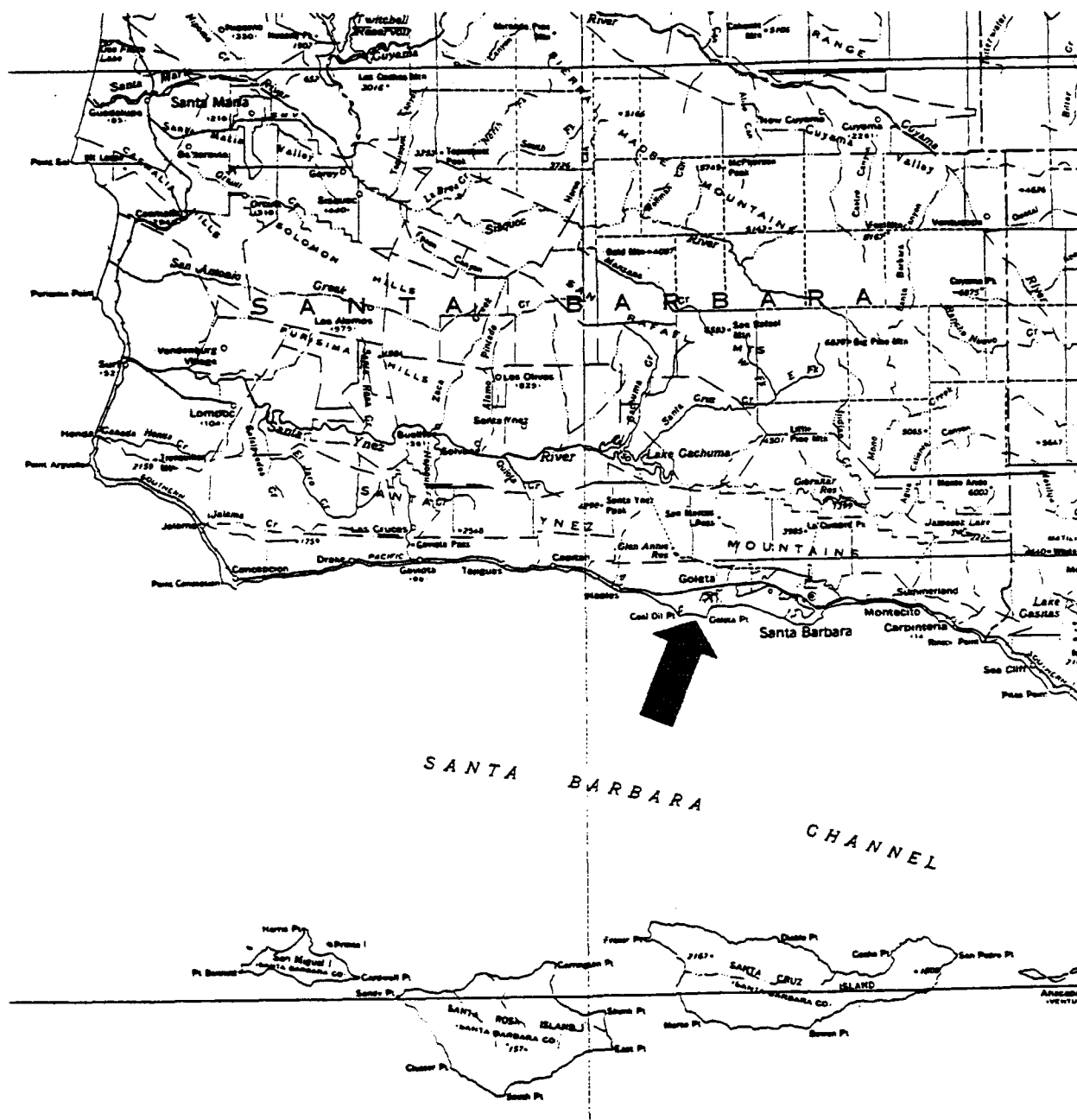
Figure 1.[1] Southern California coast adjacent to
the Santa Barbara Channel

below the top of the outfall and extends downward on both sides at a slope of 1:3. However, unsupported lengths of pipe have been observed by inspection divers.

Wave forecasting by Brown and Caldwell has indicated that breaking waves will probably occur on the outfall in depths shallower than 47 feet, with incident wave rays approaching at a mean angle of 22.5 degrees from the longitudinal axis of the outfall. The proposed method of stabilization of the outfall is to place layers of Class A and B armor rock over the existing armor. Figure 1.2 is a cross-section of the existing outfall and proposed armoring. The estimated specific gravity of the proposed armor rock is 2.69. Weight distributions are as indicated in Tables 1.1 and 1.2.

1.2 Stability Analysis

A first order design for the armor rock on the Goleta outfall may be achieved utilizing the semi-empirical methods presented in the U. S. Army Corps of Engineers Shore Protection Manual (1984). The submerged berm formed over an armored outfall may be approximated as a rubble foundation for a caisson structure if the standing wave height effect is included. Refer to Figure 1.3 which is reproduced from Figure 7-120 in the Shore Protection Manual. The caisson structure will cause a perfect reflection over the rubble foundation, effectively doubling the incident wave height and the associated destabilizing wave induced velocities and pressures. Thus, a design wave height of H for rubble foundation without a caisson would be equivalent to a design wave height of H/2 for a rubble foundation with a caisson structure.
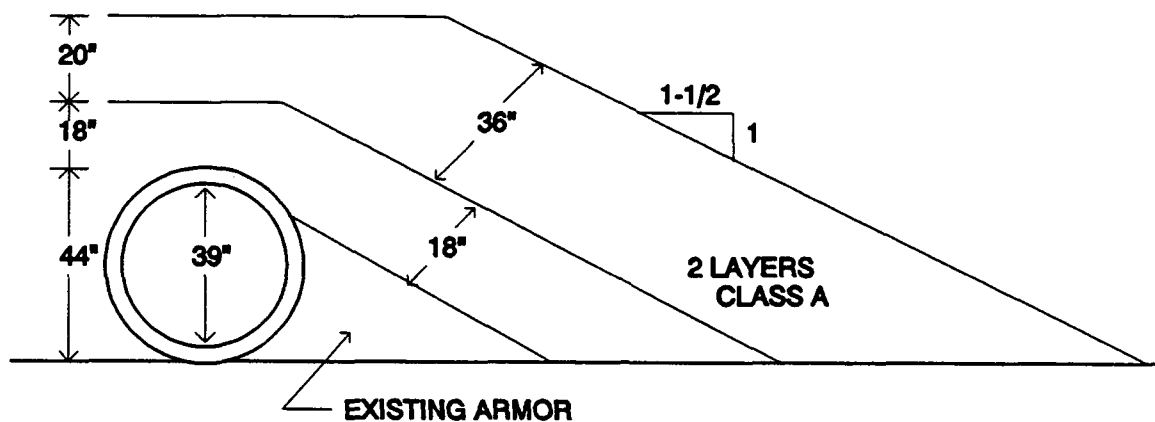
Figure 1.2 Cross-section of suggested wave protection for Class A and B rock

% by weight less than	Weight (pounds)	Size (ft)
100	460	1.6
80-98	370	1.5
65-90	300	1.4
35-75	230	1.28
5-20	150	1.1
0-20	75	0.9

% less than by weight	D (inches)
100	3.5
85-98	2.5
70-85	1.75
40-70	1.0
0-20	0.75

Table 1.1 Prototype size distribution
of Class A rock

Table 1.2 Size distribution
of Class B rock

The figure shows a log-linear chart with *Minimum Design Stability Number* (N_s^3) on the vertical axis (values from 3 to 300) and *Depth Ratio* $\dfrac{d_1}{d_s}$ on the horizontal axis (0 to 0.8). Two curves are labeled **Rubble as Toe Protection** and **Rubble as Foundation**. Accompanying diagrams show **Rubble Toe Protection** and **Rubble Foundation**, with dimensions B, d_1, d_s.

$$W = \frac{w_r\, H^3}{N_s^3\, (S_r - 1)^3}$$

and $B = 0.4\, d_s$

(After Brebner and Donnelly, 1962)

Figure 1.3 Stability Number, N_s, for rubble foundation and toe protection

Consider a breaking design wave in a water depth of 15 feet at the outfall. This will yield a shallow water breaking wave height of approximately

$$H_b = 0.8d_s = 12 \, ft$$

The equivalent loading condition for a rubble structure with a caisson would be produced by a wave height of 6 feet, doubling to 12 feet by a perfect reflection off the caisson.

The height of the rubble structure is 6.7 feet, as shown in Figure 1.2. Thus, the depth to the top of the rubble foundation is

$$d_1 = 15. - 6.7 = 8.3 \, ft$$

and

$$\frac{d_1}{d_s} = \frac{8.3}{15} = 0.55$$

This provides a stability number from Figure 1.3 of approximately

$$N_s^3 \approx 20$$

For a specific weight of

$$S_r = 2.69$$

and a unit weight of rock

$$W_r = S_r \gamma_w = 2.69 \, (62.4) = 168 \, lb/ft^3$$

the stable rock weight is

$$W = \frac{w_r \, H^3}{N_s^3 (S_r - 1)^3} = \frac{168(6)^3}{20 \, (2.69 - 1)^3} = 376 \; lbs$$

This relatively crude calculation verifies the 80-98% class interval rock size for the Class A design rock in Table 1.1.

1.3 Scope

This report describes a model study of the stability of existing and proposed armor rock on the Goleta Sanitary District ocean sewer outfall. Large scale model testing was conducted at the Oregon State University O.H. Hinsdale Wave Research Laboratory in Corvallis Oregon. The project was performed under contract with Brown and Caldwell Consultants of Irvine California; the model construction and testing took place between February 10, 1992 and February 22, 1992. A weighted PVC pipe was constructed and armored initially to model the existing condition of the prototype outfall, shown in Figure 1.4. It was tested in prototype depths of 15, 30, and 45 feet and subjected to breaking waves at prototype periods of 14, 16, 19, 22 seconds. The model was also subjected to random waves modeled as a JONSWAP spectrum. Next, the structure was configured to model the proposed Class A and B armoring, as in Figure 1.5, and subjected to a similar array of wave conditions. It was understood that model testing of the proposed Class A and B armoring was dependent upon failure of the first model.
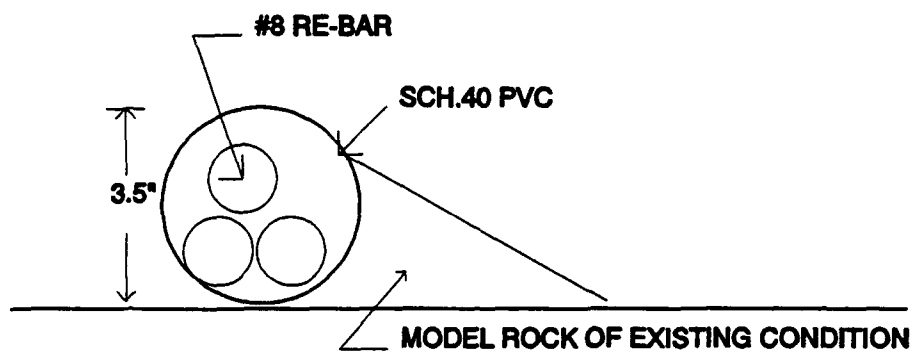
Figure 1.4 Cross-section of model for existing condition
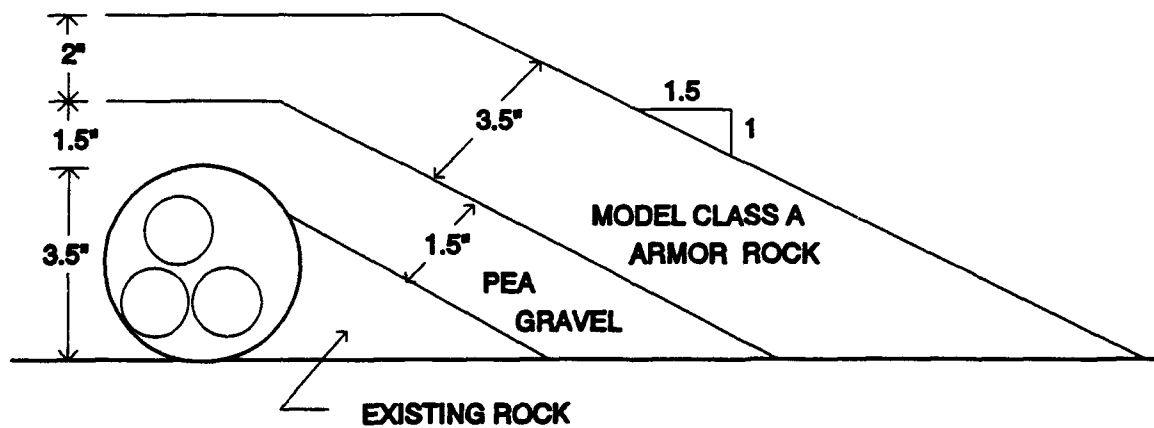
Figure 1.5 Cross-section of model for proposed armoring

Wave and current measurements were recorded to quantify the resulting wave field in the area of the model. Video observations were recorded for each test run from one camera above water and two cameras below water to monitor stability of the armor rock. Wave data are analyzed using Fourier analysis combined with the Goda method (Goda, 1985) for incident and reflected wave separation. A summary of wave and current conditions is presented in tabular form at both model and prototype scale. Dimensionless graphical results are presented and discussed.

2.0 MODEL DESCRIPTION

2.1 Facilities

The model tests were conducted at the O. H. Hinsdale Wave Research Laboratory, Oregon State University. The major features of the Laboratory include: 1) a two dimensional wave channel, 342 feet long, 12 feet wide and 15 feet deep with a hydraulically driven, hinged flap wave board, used for wave induced force and response measurements, 2) a three dimensional wave basin, 87 feet long, 60 feet wide and 5 feet deep with a 30 segment directional wave generator, electrically powered through ball screw drives, used for wave diffraction studies, 3) a circular wave basin, 50 feet in diameter and 5 feet deep with a 16 segment spiral wave generator, electrically powered through ball screw drives, used for coastal circulation and sediment transport studies, 4) a VAX server 3400 and two VAX stations 3100 with optical communication links for wave generation control and 64 channels of digital data acquisition, 5) a 50,000 ft^2 environmental enclosure for the facilities including an 1,875 ft^2 elevated control room.

This study utilized the large two dimensional wave channel to maximize the scale of the model. The wave board is hinged at the bottom of the channel in an overall depth of 18 feet. The wave board is servo-hydraulically driven with direct, digital controls. A 150 horsepower electrical motor powers a 3000 psi, 76 gpm oil hydraulic pump, which is the prime mover for an eight inch diameter actuator. The actuator ram has a stroke of ±30 inches and is located 10 feet above the channel floor. The back side of the wave generator is dewatered, reducing the power

consumption by one-half. The hydrostatic head is overcome by applying nitrogen gas pressure to the back side of the actuator, creating static equilibrium between the still water pressure and a gas spring. The sides of the waveboard are effectively sealed to the sides of the wave channel via a plastic wiping seal, sliding on stainless steel cladding which is epoxied to the concrete channel walls. A photograph and diagram of the wave channel appear in Figures 2.1 and 2.2.

Two feedback loops are used to control the waveboard. The primary loop is a displacement control which minimizes the error between the measured waveboard position and the computed position, the latter based upon a linear wave theory solution for the waveboard transfer function. A secondary loop measures the wave profile at the center of the waveboard and corrects the board velocity to yield the desired wave profile. This loop provides the capacity for active reflected wave cancellation.

Figure 2.1   O.H. Hinsdale Laboratory 2-dimensional wave channel
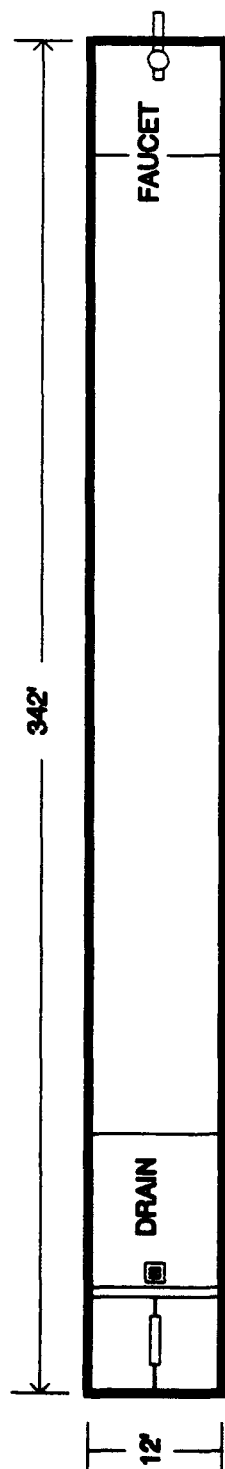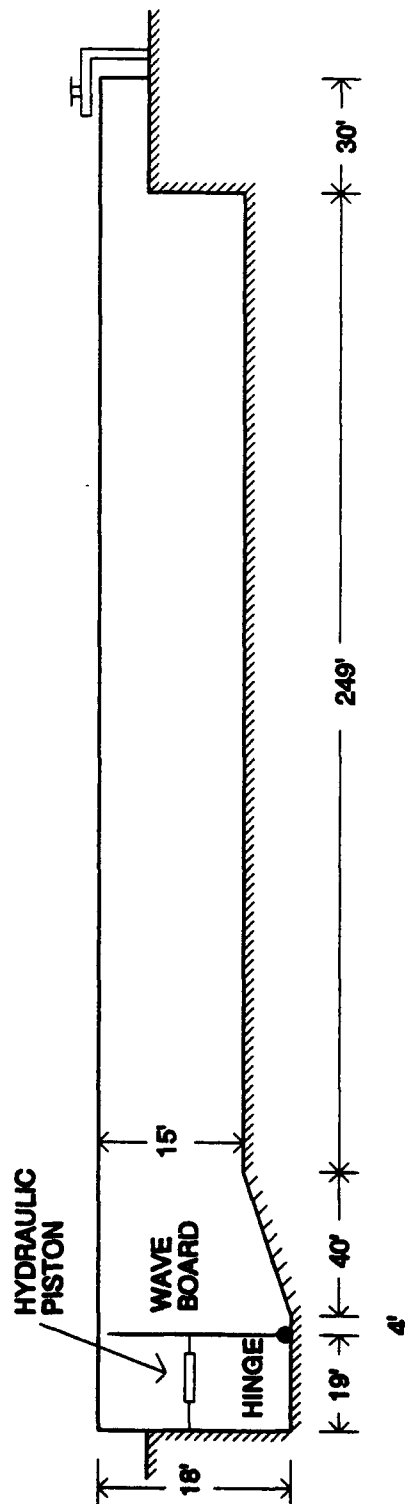
Figure 2.2 Plan view and profile of the 2-dimensional wave channel

Both monochromatic and random waves are produced with this wave generator, over a useful period range of 1 to 10 seconds. Breaking waves up to 5.0 feet high are generated in water depths of 11.5 feet, for wave periods of 4.0 seconds or less. Larger waves are limited in height by the stroke of the wave generator, however, long wave breaking can be achieved by shoaling the waves with a movable false bottom.

2.2 Scaling

The extreme design wave condition for this test series is a breaking wave at water depths of 45, 30 and 15 feet. Given the desired depth and wave conditions and the physical constraints of the wavemaker, it was determined that, with shoaling, a maximum scale of 1:10 was possible for producing a breaking wave at a prototype depth of 45 feet. The size of the channel allows for large scale model testing with a minimum distortion in viscous characteristics of the flow field relative to the prototype condition. As long as the armor unit Reynolds number of the model exceeds $2x10^5$, the error in viscous effects of the fluid on the model versus the prototype is less than 3 percent, as indicated in Figure 2.3 (Sollitt, DeBok, 1976). This corresponds to a one pound armor unit and a four foot design wave height. Smaller armor weights and smaller wave heights yield smaller Reynolds numbers with a corresponding reduction in the apparent model stability. This provides a conservative estimate to the design condition by under predicting the no damage wave height.

Compressibility of the liquid is of no consequence in this application and surface tension may also be ignored because of the scale of the waves. Reynolds similarity is achieved by the large scale of the model. Because gravity is the restoring
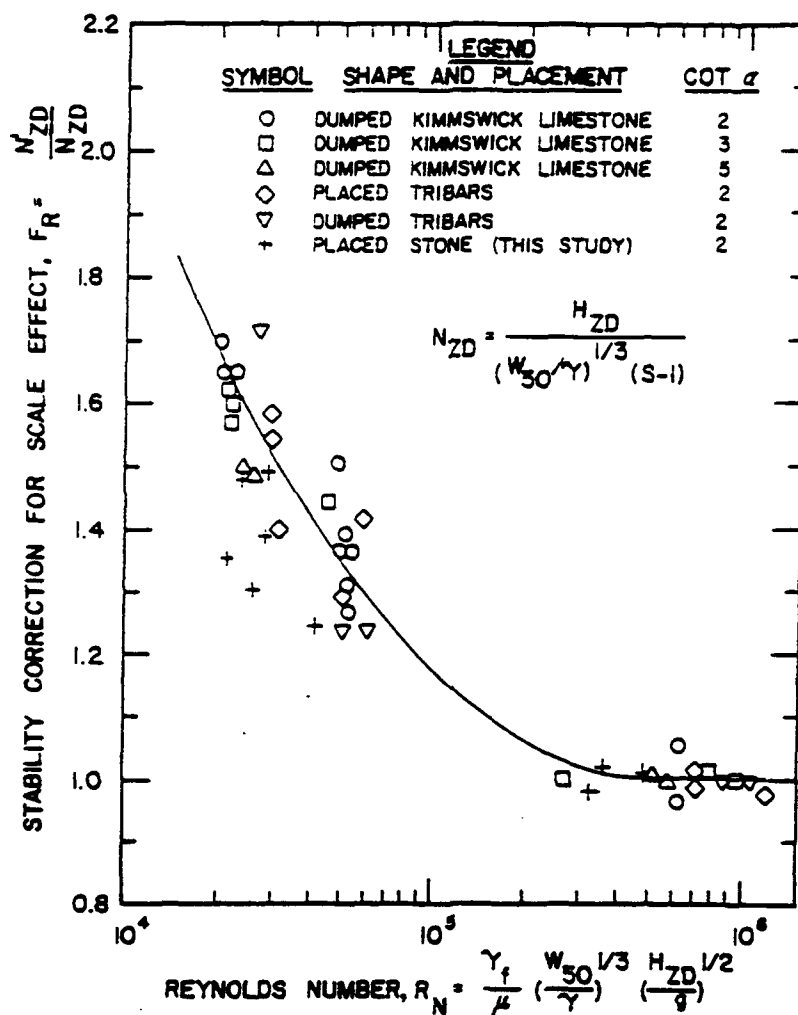
Figure 2.3 Stability correction for scale effects as
a function of Reynolds Number

force, dynamic similitude may be characterized by maintaining equality of the Froude number during scaling. The Froude number maintains the ratio of inertial forces $(mV\Delta V/\Delta Z)$ to gravitational forces (mg) or:

$$F=(mV\Delta V/\Delta Z)/mg$$

where,   m = mass of the fluid parcel
          g = gravitational acceleration
          V = characteristic velocity
          $\Delta V/\Delta Z$ = velocity gradient, scaled as V/l

thus,

$$F=(V^2/l)/g=V^2/gl$$

and,

$$(V^2/gl)_{prototype}=(V^2/gl)_{model}$$

or,

$$(V/\sqrt{gl}\,)_{prototype}=(V/\sqrt{gl}\,)_{model}$$

Given that the Froude number remains constant and a length scale factor (SF) is characterized by the equation:

$$SF=l_m/l_p$$

then the following scale relationships apply:

$$l_m = (SF)l_p \qquad\qquad \text{Length}$$

$$t_m = (\sqrt{SF}\,)t_p \qquad\qquad \text{Time}$$

$$V_m = (\sqrt{SF}\,)V_p \qquad\qquad \text{Velocity}$$

$$W_m = (SF)^3(\rho_m/\rho_p)W_p \qquad\qquad \text{Weight}$$

2.3 Bottom Profile

Figure 2.4 is a profile of the two-dimensional wave channel, as configured for the test. Since the prototype bottom slope over the 3600-foot section of outfall under consideration is less than 1:100, the model test section was placed on a level false bottom surface. The elevated false bottom was required to allow shoaling of the waves from the wavemaker to the model. Shoaling is necessary to provide an array of desired wave characteristics at the model, given the limitations of the wavemaker. Constraints on model wave height include wavemaker stroke and velocity, as well as wave breaking.

Target wave characteristics at the wavemaker are calculated by determining a desired wave at the model and then shoaling it back to the wavemaker on a slope of 1:12 with a differential height of 10.75 feet. The level false bottom section was installed using 12 foot x 12 foot x 8 inch reinforced concrete slab sections bolted into place and caulked between sections. It extended for seven sections or a total of 84 feet at approximately midway in the channel. A beach profile on a slope of 1:12 extended from the level false bottom section to the end of the wave channel, providing low reflection for a wide range of wave periods.

2.4 Outfall Pipe

As stated previously, a maximum scale of 1:10 is possible for producing a

breaking wave at a prototype depth of 45 feet. However, the existing armor rock

profiles indicated a variation in gradation with depth. Since a single structure was

used to model existing conditions at each of the three indicated depths, the scaling was

adjusted for each depth to more closely represent prototype conditions. A scale of

around 1:12 allowed flexibility of scaling in either direction keeping within the

maximum scale limitation of 1:10.

A prototype 44-inch O.D. outfall was to be modeled at a scale of around 1:12

which gives a model O.D. of 3.67 inches. In consideration of the commercial

availability of materials, a 3-inch schedule 40 PVC pipe with an O.D. of 3.5 inches

was chosen for the model. This provided a model to prototype scale of 1:12.57. The

model was oriented in the wave channel with its longitudinal axis at an angle of 22.5

degrees from the longitudinal axis of the channel, giving a nominal pipe length of

28.97 feet. Figures 2.5 is a diagram of the pipe section orientation and Figure 2.6 is

a photograph of the installed pipe section prior to installation of the armoring. Since

this study was concerned primarily with stability of the armor rock and not the

pipeline itself, the model pipe was weighted with six 12-foot sections of No. 8 (1-inch)

steel reinforcing bar to prevent flotation and lateral movement under wave loading.

2.5 Geologic Materials

The existing armoring of the outfall was modeled using crushed river rock with

TO WAVE BOARD

7.25'

3.5 O.D. PVC PIPE

1
12

8"

CONCRETE SLAB SECTIONS

7.08'

1
12

TO BEACH
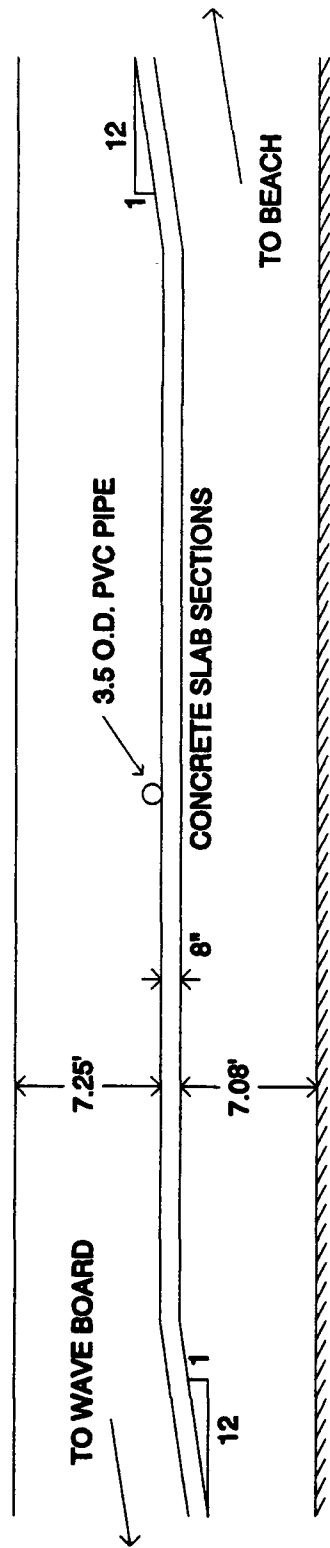
Figure 2.4 Profile of the wave channel configured for the test

28.97

22.5°

12'

84'
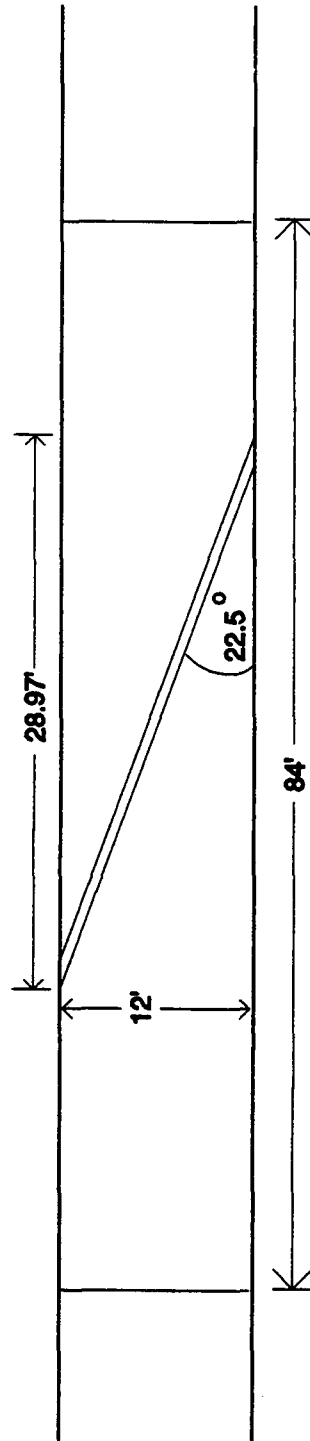
Figure 2.5 Diagram of the pipe section orientation (plan view)

Figure 2.6 Installed pipe section without armor

a specific gravity of 2.70. The rock was mixed to provide a model distribution which represented a scaled prototype distribution. A sample weight distribution of the model armor rock for the existing condition was compared with a prototype sample distribution taken at a depth of 30 feet and scaled at 1:12.57. Figure 2.7 is a plot of the model and scaled prototype weight distributions for the existing condition. As indicated in Figure 2.7, the model rock distribution was found to be a little light and the model scale for this depth was adjusted to 1:13.10, which represented a change of approximately 4.2 percent. The same model was used at a scale of 1:12.00 and
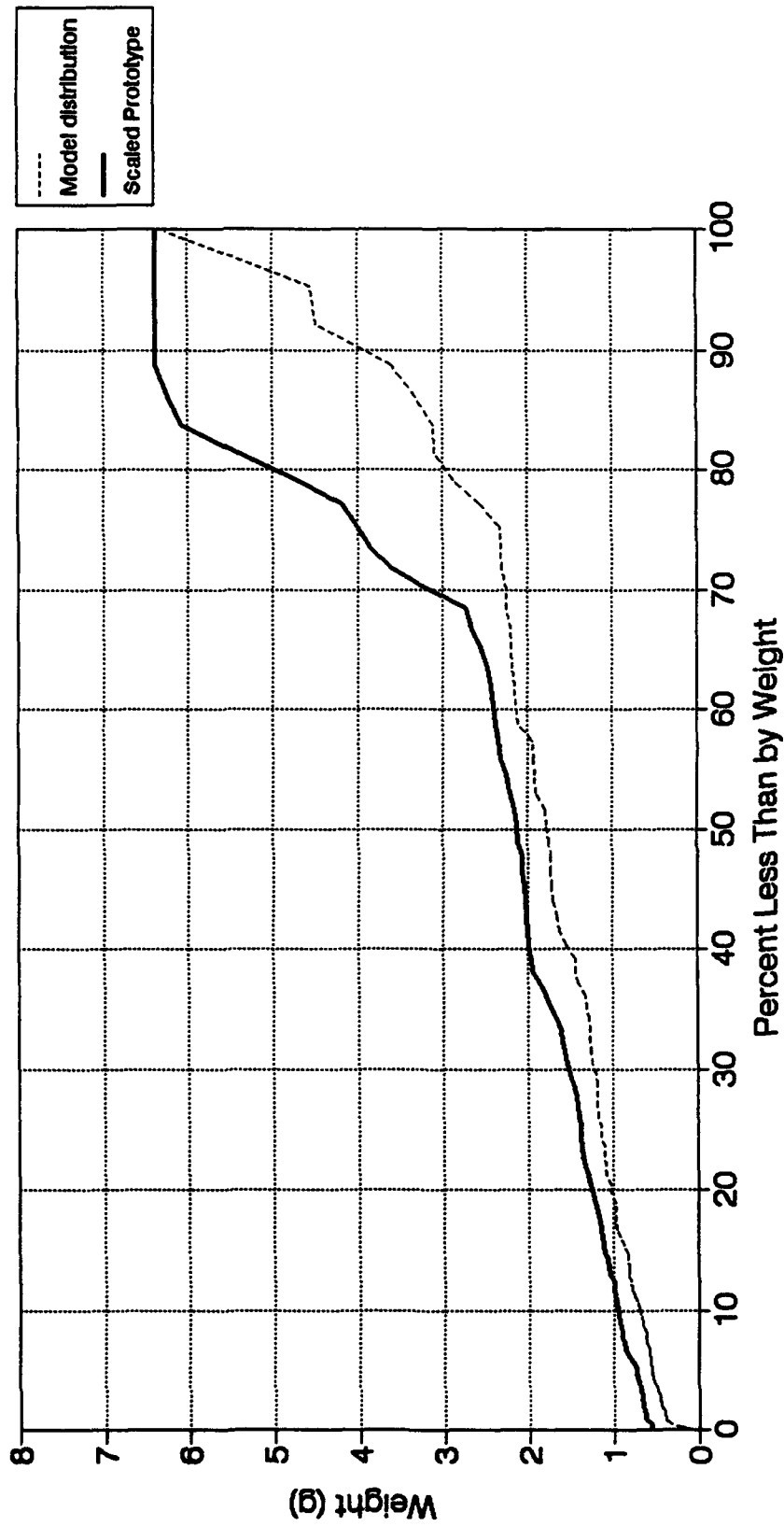
Figure 2.7 Model and scaled prototype rock weight distributions
for the existing condition

1:15.50 for the 15-foot and 45-foot depths, respectively, based on variations in

prototype rock distributions at those depths. Scaling the wave conditions based on the

armor rock scale for each depth produced a -5 to +23 percent error in modeling the

pipe. It was considered that this error in pipe size would not significantly affect the

stability of the armor rock.

The Class A armoring was modeled using crushed basalt with a specific gravity

of 2.77. The Class A rock was separated by sieving with a Gilson Model TM-4

shaker and sieve sizes of 1.5, 1.25, 1.0 and .075 inches. Mixing by weight class

intervals, to represent a scaled prototype distribution, was achieved in a tumbling

concrete mixer. The process is illustrated in the photograph of Figure 2.8. The

weight distribution of the mix was found to be within an acceptable range of variation

of the prototype.

Figure 2.9 is a plot of two model weight distributions for the proposed Class A

armoring compared to target minimum and maximum limits. The Class B armoring

was modeled using pea gravel which was sieved and mixed to approximate the

prototype Class B rock. Figure 2.10 is a plot of the model size distribution compared

to target limits for the Class B rock   Although the Class B distribution exceeded the

maximum suggested limit, it was not considered that this would significantly affect the

outcome of the armor stability tests. The proposed Class A and B armor rock was

scaled at 12.57 with no variation in the scale with depth.

The required model cross-section of the existing condition was constructed by

dropping the model rock through an 18-inch water column onto the pipe section. This

Figure 2.8 Rock sieving and mixing process

procedure is illustrated in Figure 2.11. The model armoring was not compacted or

otherwise disturbed in any way after placement except that the toe on both sides of the

model was dressed by removing excess rock that fell outside the limits of the profile.

No high spots in the armoring were adjusted but low spots were filled in with

additional rock, providing an overall armor profile that tended to match or exceed the

required armor coverage. Upon completion of construction of the first model, the

wave tank was drained for visual inspection prior to testing. Figure 2.12 is a

photograph of the model outfall section configured to the existing condition of the

prototype.
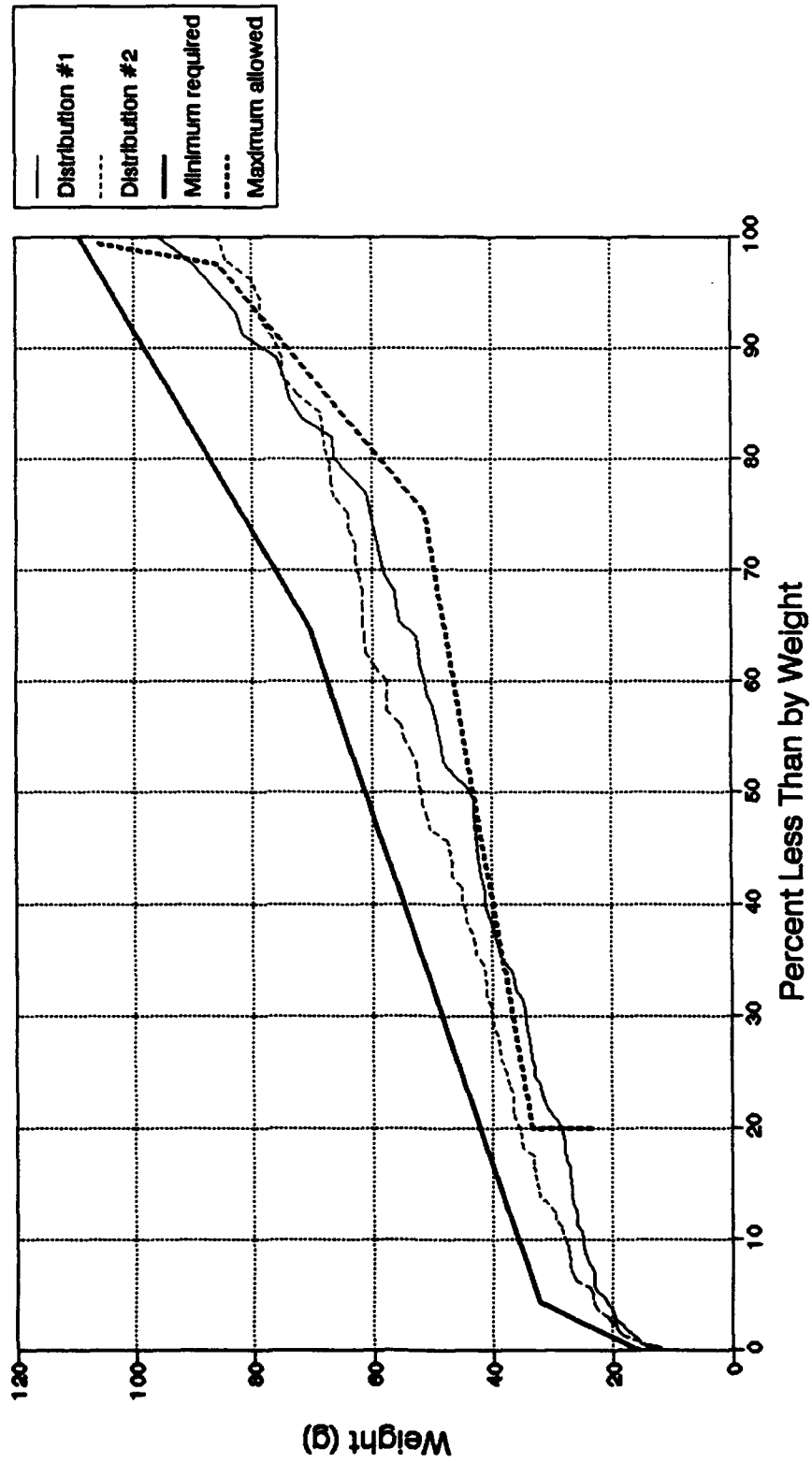
Figure 2.9 Model weight distributions of Class A armor rock
compared to target minimum and maximum values
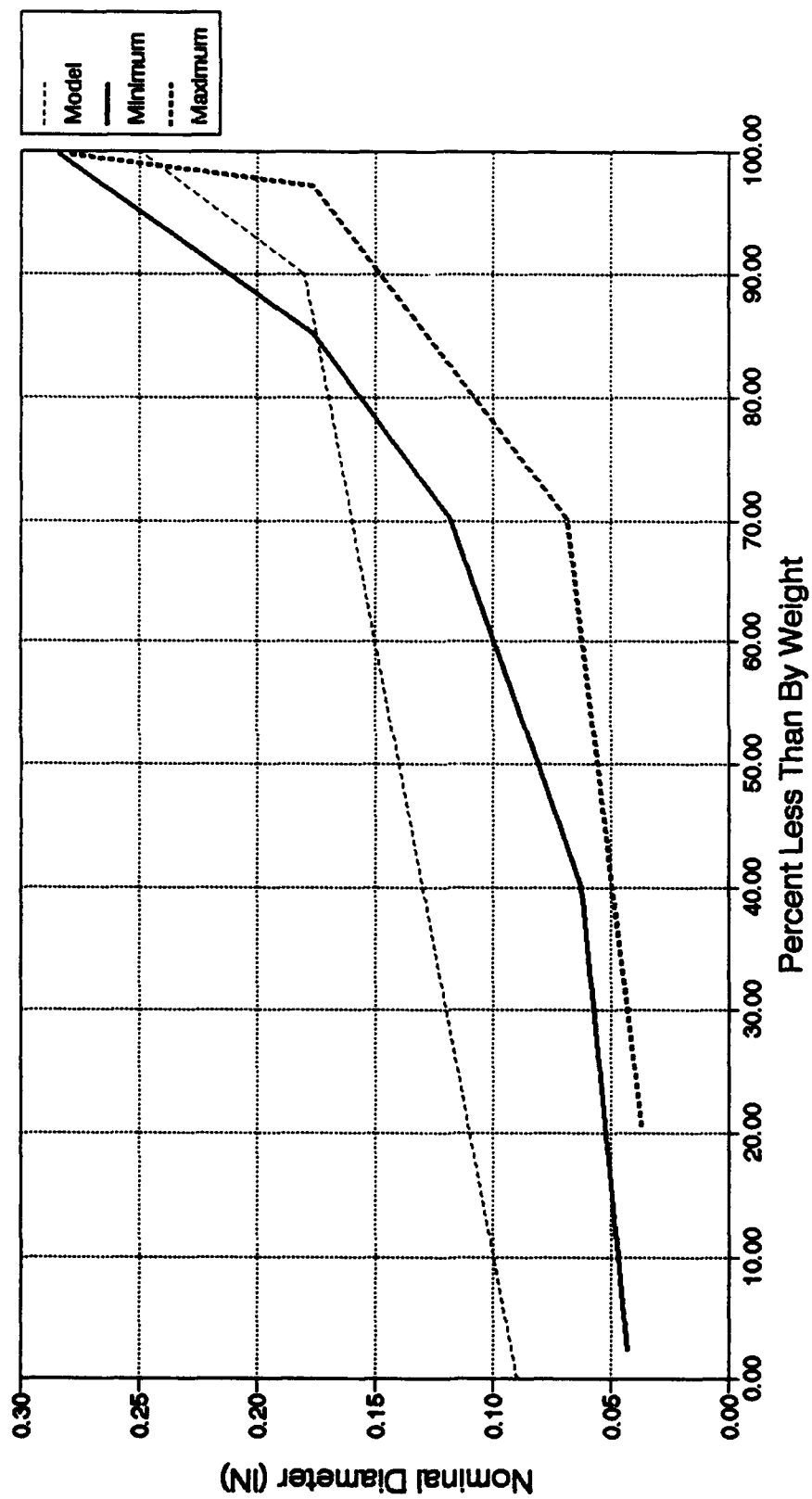
Figure 2.10 Model size distribution of Class B armor rock
compared to target minimum and maximum values
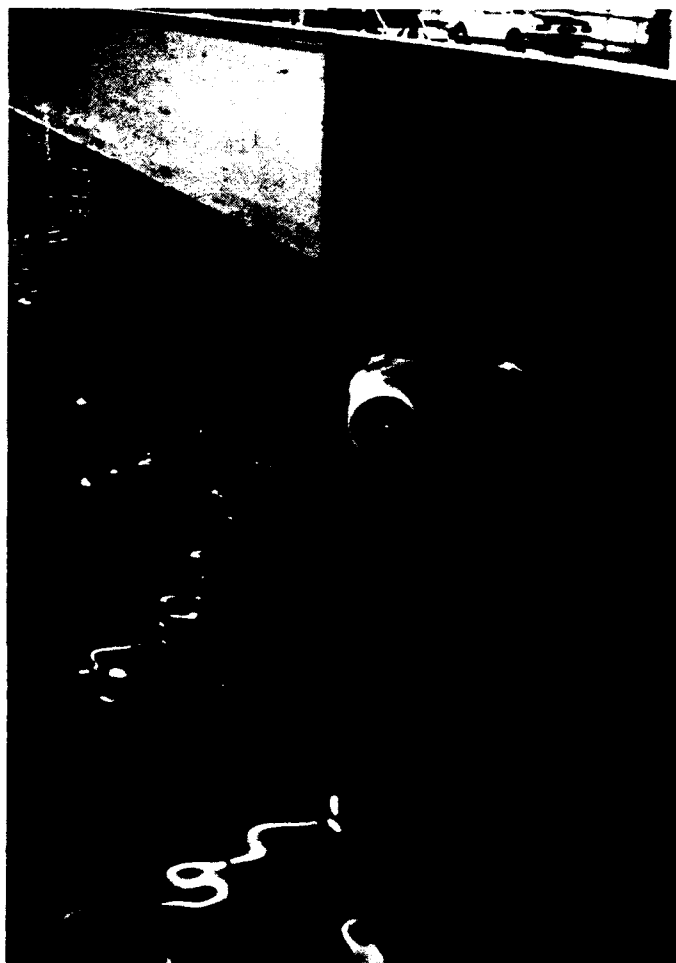
Fig 2.11 Placement of model rock through 18-inch water column

After model testing of the existing condition was complete, the model was reconstructed with the proposed design armoring. The required cross-section of the second model was constructed by dropping first the Class B rock and then the Class A rock through an 18-inch water column onto the pipe section. The wave tank was then drained and a plywood template was used to manually dress the slope to the desired cross-section of Figure 1.2. Figure 2.13 is a photograph of the outfall model section configured to the proposed armoring.

Fig 2.12 Model outfall section configured to the existing condition
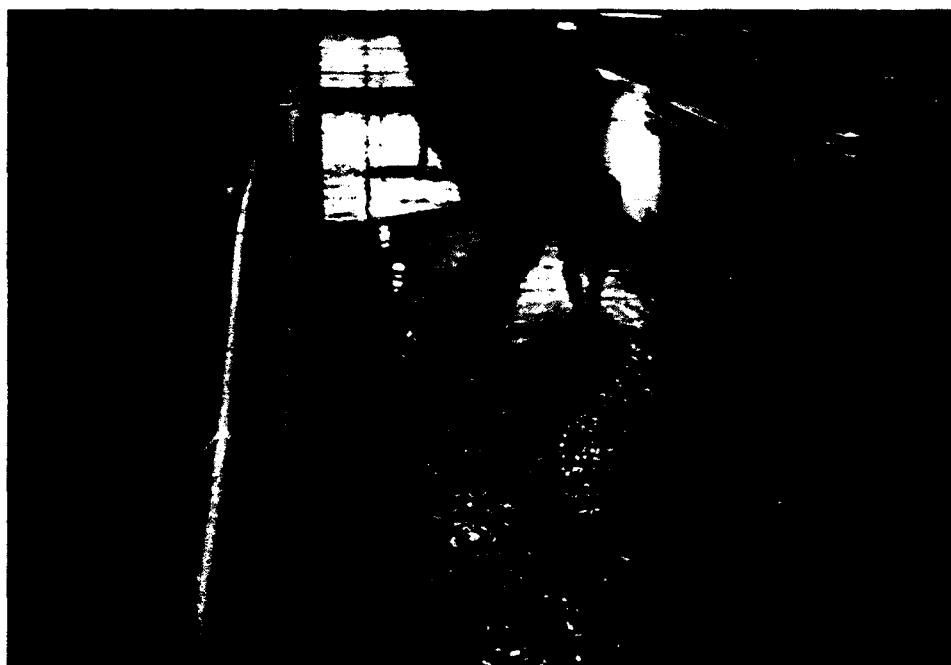
Fig 2.13 Model outfall section configured to the proposed armoring

3.0 EXPERIMENTAL PROCEDURES

3.1 Overview

Model testing was conducted over a two week period from February 10, 1992 to February 21, 1992. The testing was divided into two phases. The first phase was designed to model the existing condition of the Goleta outfall and determine its stability under various monochromatic and random wave conditions. The second phase was designed to model the proposed design armoring. Prototype sea conditions used for the tests were prescribed by Brown and Caldwell. Wave and current measurements were taken on the seaward and leeward sides of the model to quantify the actual wave conditions of each test. A binary determination of stability was achieved through visual observation of the model during each test. Video cameras recorded each test from one above water location and two below water locations.

3.2 Instrumentation

Quantitative data recorded during each test included wave profile and current measurements. The wave profile was measured by seven resistive type wave gauges spaced along the east side of the wave channel adjacent to the model and one sonic wave profiler mounted on a beam at the center of the channel on the seaward side of the model. The resistive wave gauges are designed and constructed at the Wave Research Laboratory and are described in a paper by Dibble and Sollitt (1989). Current measurements were taken with two three-

directional, Sensor Data, acoustic current meters mounted along the wall of the channel on either side of the model. A photograph of the instrumentation and underwater video camera is presented in Figure 3.1.

Figure 3.1 Acoustic meter and video camera on east wall

A total of twelve data channels were used to input wave and current information into the laboratory's digital data acquisition system, one for each wave profiler and two (horizontal and vertical) for each current meter. Data was sampled at a rate of 16 data points per second. Table 3.1 identifies each instrument, its corresponding data channel and its location in the wave channel relative to the center of the model. A six channel pen plotter was also used to visually monitor wave and current measurements during tests.

Table 3.1 Instrument Identification and Location

Ch#	Instrument	Measurements	Mounted/Side
Ch# 1	Resistive Wave Gage	Wave Profile	-23 ft./East
Ch# 2	Resistive Wave Gage	Wave Profile	-16 ft./East
Ch# 3	Resistive Wave Gage	Wave Profile	-13.5 ft./East
Ch# 4	Resistive Wave Gage	Wave Profile	-1.0 ft./East
Ch# 5	Resistive Wave Gage	Wave Profile	+25 ft./East
Ch# 6	Resistive Wave Gage	Wave Profile	+32 ft./East
Ch# 7	Resistive Wave Gage	Wave Profile	+35 ft./East
Ch# 8	Acoustic Current Meter	Ver. Vel.	-59 in./West
Ch# 9	Acoustic Current Meter	Hor. Vel.	-59 in./West
Ch# 10	Acoustic Current Meter	Ver. Vel.	+59 in./East
Ch# 11	Acoustic Current Meter	Hor. Vel.	+59 in./East
Ch# 12	Sonic Profiler	Wave Profile	-60 ft./Center

(Minus direction is toward waveboard)

Table 3.2 Wave Gage Calibration

	Calibration Constant: feet per volts				
Calibration Date:	Feb. 10	Feb. 13	Feb. 24	Average	St. Dv.
Gage No.					
1	.4446	.4508	.4753	.4569	.0162
2	.4452	.4377	.4602	.4477	.0115
3	.4439	.4393	.4606	.4479	.0112
4	.4376	.4320	.4512	.4403	.0099
5	.4457	.4265	.4483	.4402	.0119
6	.4669	.4462	.4729	.4620	.0140
7	.4496	.4306	.4554	.4452	.0130
Avg.	.4476	.4376	.4606	.4486	.0115
St.Dv.	.0092	.0087	.0103	.0082	

In addition to wave and current records, each test run was video taped from three separate locations simultaneously. Two video cameras were mounted below the waterline; one on the seaward side of the model which utilized a wide angle lens and the other on the lee side of the model which utilized a telephoto lens. The third video camera was located on a stationary carriage located at the center of the channel on the leeward side of the model approximately 20 feet away and 10 feet above the still water level. The video cameras were instrumental in observing the stability of the model during each test run. Three complete and time coordinated video tapes of each test run were recorded including audio comments regarding significant characteristics of the run. The video tapes are synchronized with each other and the digital data records by dubbing WWV time code onto audio channel 2.

Calibration of the wave gauge instrumentation was performed prior to beginning the tests to ensure accuracy of the recorded data and then again before the second phase of testing and upon completion of all tests. Calibration was achieved by filling or draining the channel and correlating the change in water depth with the output of each instrument. Table 3.2 provides calibration constants for each resistance wave gauge taken during each calibration, along with an average calibration constant and standard deviation for each gauge. The calibration constant for the current meters is 10 volts full scale per meter per second of velocity. Figure 3.2 shows the location of the instruments used in this study.
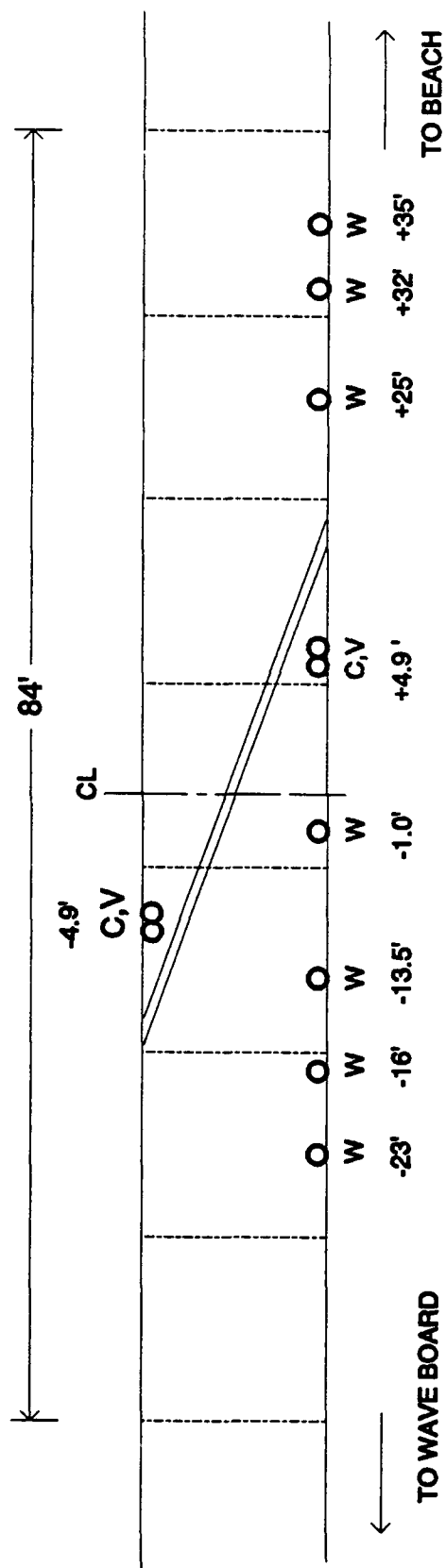
Figure 3.2 Diagram of instrumentation in the wave channel

3.3 Wave Conditions

The majority of test runs were conducted with monochromatic or simple periodic waves. The repetition provided by monochromatic waves allowed for enhanced judgement of the stability of the outfall for a given wave condition. A range of periods was chosen based upon significant wave periods that were forecasted at the prototype location. The procedure for testing the outfall stability in monochromatic waves was to subject the model to waves of a specific period, increasing the wave height by small incremental adjustments to the stroke of the wavemaker until the wave was breaking at or near the model. Monochromatic wave tests were 10 minutes in duration and the period of the waves remained constant during the run. During each test run, the stability of the model was observed and recorded by representatives of Brown and Caldwell.

The potential for damage to the armoring of an outfall is increased in random sea conditions where a short series of very large waves is possible during the random sequence. Therefore, random waves runs were included as part of the testing. The Jonswap spectrum was chosen to model the random sea conditions. The equation for this spectrum is:

$$S(f) = \alpha H_s^2 \ (1/T_p^4 \ f^5) \ \exp\left[-1.25/(T_p \ f)^4\right]\gamma^\beta$$

where,

$$\alpha = 0.0624 / \left[0.230 + 0.0336\gamma - \left(0.185 / (1.9 + \gamma)\right)\right]$$

$$\beta = \exp\left[-(T_p f - 1)^2 / 2\sigma^2\right]$$

$$\sigma = \sigma_a : f \leq f_p, \ \sigma_b : f \geq f_p$$

$$\sigma_a \doteq 0.07, \ \sigma_b \doteq 0.09$$

$$\gamma = 1 \sim 7 \ (mean \ 3.3)$$

$$H_s = \text{significant wave height}$$

$$T_p = \text{peak wave period}$$

The significant wave height and peak period of the random wave sequence was chosen based upon forecast prototype design wave conditions. The procedure for testing the model in random waves was to subject it to a random wave sequence varying from 10 to 30 minutes duration. During each test run, the stability of the model was observed and recorded.

The model tests were divided into two phases, designated A and B. Phase A of the tests modeled the existing condition of the outfall for breaking and non-breaking monochromatic waves with periods of 14, 16, 19, and 22 seconds and with random waves at prototype depths of 15, 30 and 45 feet. The scale of the waves varied with depth. Phase B of the tests modeled the proposed additional armoring on the outfall for breaking and non-breaking waves under similar conditions. The scale during phase B of the tests remained constant for all test

runs modeling the Goleta outfall. Figure 3.3 shows monochromatic waves
breaking on the model of the existing condition of the outfall. Figure 3.4 shows
the model, configured with the proposed armoring, being subjected to a sequence
of random waves.

3.4 Summary of Test Runs

A total of 64 test runs and three calibration runs were made during phase A
and B of the tests. Each run was identified by a run number which indicates the
phase of testing, the reciprocal of the scale factor and the specific run designator.
In addition to tests performed specifically for the Goleta outfall study, tests of the
San Diego Point Loma outfall were run at the request of Brown and Caldwell.
Test runs modeling the Goleta outfall are identified by run numbers beginning
with A131, A155, A120 and B126 where the numeric code represents the
reciprocal scale ratio of 13.1, 15.5, 12.0 and 12.57, respectively. Test runs
which modeled prototype conditions which were non-specific to the Goleta study
are identified by scale ratios other than those listed above.

Figure 3.3 Monochromatic waves breaking on model of existing condition
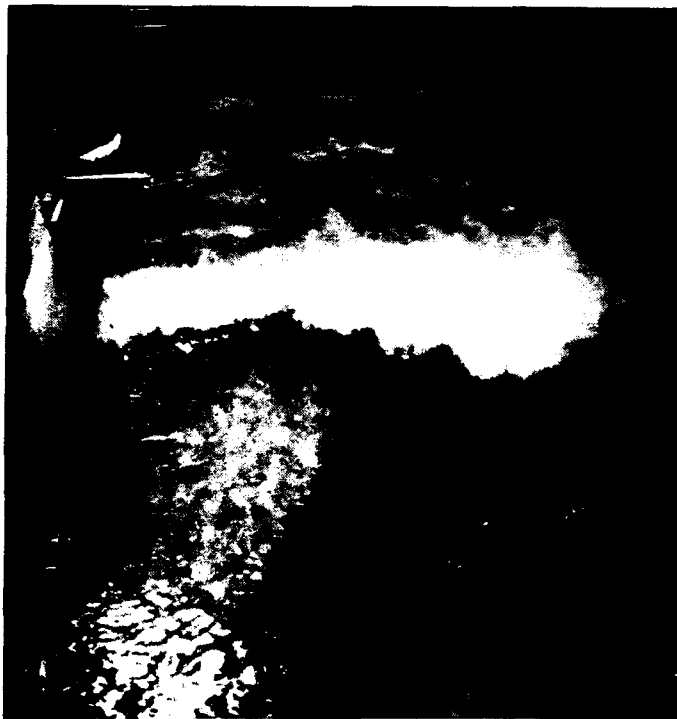
Figure 3.4 Random waves breaking on model with proposed armoring

4.0 RESULTS

4.1 Overview

The quantitative results for this study are a description of the hydrodynamic environment for each run condition. Wave profiles are quantified in terms of wave period, incident and reflected wave heights, as well as transmitted and beach reflected wave heights. Equivalent properties for both random and monochromatic waves are reported as the peak wave period and zero moment wave height. Horizontal velocity amplitudes of the currents at the toe of the slope on the seaward and leeward sides of the model are also reported. Results are summarized in tabular form at both model and prototype scale. Graphical interpretations of dimensionless results are also provided.

4.2 Analysis Methods

The armored outfall pipe creates a partial blockage of the water column which causes a fraction of the incident wave energy to be reflected back towards the wave generator. Two wave profile measurements are required to separate the unknown incident and reflected wave components. This is accomplished by spacing two wave gauges at a distance between 5% and 45% of the wave length and performing simultaneous measurements. Fourier analysis yields the sine and cosine amplitudes of each frequency component which can be interpreted to separate the incident and reflected waves (Goda, 1985). This method is applied to both monochromatic and random waves.

The zero moment wave height, H_{mo}, is the height of a single wave component which has twice the energy of the measured wave system. In deep water for waves of low steepness, the zero-moment wave height is equivalent to the significant wave height, H_s. The root-mean-square wave height, H_{rms}, has an energy level that is equal to the total energy in a random sea condition. The root-mean-square wave height is equal to the zero moment wave height divided by the square root of two.

$$H_{rms} = \frac{H_{mo}}{\sqrt{2}}$$

Thus, a random sea state may be reported as an equivalent single wave in terms of the peak wave period and either the zero moment wave height or the root-mean-square wave height.

The analysis method used in this report combines Fourier analysis to separate frequency components along with the Goda method to separate incident and reflected waves. The total energy for each wave system is obtained by integrating the power spectral density over the frequency range applicable to the measurement scheme. The energy of the incident and reflected wave trains are interpreted to quantify the zero-moment incident and reflected wave heights on both sides of the structure. The ratio of the reflected to incident zero moment wave height provides an estimate of the effective reflection coefficient for the structure and beach. The peak wave periods are identified at the peak of the measured power spectral densities.

A pair of wave gauges is required to compute the incident and reflected wave characteristics discussed above. With three gauges each on the seaward and leeward sides of the model, three combinations of two gauges are available to separate the incident and reflected waves. This provides three estimates to the wave conditions on each side of the structure. The Appendix to this report provides all three estimates of incident and reflected wave conditions for each test run on both sides of the structure. Also, an analysis of Wave Gauge 4 data taken near the center of the model and the two current meters is provided. Test waves were observed to continue to shoal and break in the vicinity of the model. The observed conditions violate the stationary and spatially independent assumptions implicit in the Goda method. Thus, some variation in the results between different combinations of wave gauges is expected. Wave induced velocities of the toe of the seaward and leeward slopes of the structure are also Fourier analyzed. No separation of incident and reflected wave components is possible with local velocity measurements. Nevertheless, the equivalent zero-moment velocity height, or double amplitude, is computed for each record, utilizing a method analogous to that described for the wave profile measurements. The zero moment velocity double amplitude and peak period for the two current measurements are also tabulated in the Appendix.

4.3 Tabular Summary of Wave Conditions

Table 4.1 provides a summary of the model test conditions for each separate wave test. It is a reference log for the analyzed data which follows.

Table 4.1   Data Log Summary

Run Number	Scale Ratio 1:	Run Date	Run Time	Duration (sec)	Mon or Rand	Depth@ Wavbrd (Ft)	Depth Model (Ft)	Wave Period (Sec)	Target Wave Ht.(Ft)	Measured Wave Ht.(Ft)	Wave-Maker Span
CALIB-1	-	10FEB92	17:20	14400	--	--	--	--	--	--	--
A131-01	13.1	11FEB92	10:10	600	M	13.04	2.29	5.25	0.763	0.75	1.0
A131-02	13.1	11FEB92	10:29	600	M	13.04	2.29	5.25	1.145	1.13	1.0
A131-03	13.1	11FEB92	10:51	600	M	13.04	2.29	5.25	1.145	1.31	1.0
A131-04	13.1	11FEB92	11:38	600	M	13.04	2.29	5.25	BREAK	1.6	0.57
A131-05	13.1	11FEB92	11:58	600	M	13.04	2.29	5.25	BREAK	1.6	0.57
A131-06	13.1	11FEB92	13:30	600	M	13.04	2.29	6.078	BREAK	1.6	0.57
A131-07	13.1	11FEB92	13:51	600	M	13.04	2.29	6.078	BREAK	1.4	0.55
A131-08	13.1	11FEB92	14:16	600	M	13.04	2.29	4.421	BREAK	1.41	0.57
A131-09	13.1	11FEB92	14:37	600	M	13.04	2.29	3.868	BREAK	1.54	0.62
A131-10	13.1	11FEB92	14:56	600	M	13.04	2.29	5.25	2.25	1.47	0.59
A131-11	13.1	11FEB92	15:23	768	R	13.04	2.29	5.25*	1.552*	--	--
A131-12	13.1	11FEB92	15:47	1800	R	13.04	2.29	5.25*	1.552*	--	--
A131-13	13.1	12FEB92	09:13	600	M	13.04	2.29	5.25	BREAK	--	0.57
A131-14	13.1	12FEB92	09:37	600	R	13.04	2.29	5.25*	1.552*	--	--
A155-01	15.5	12FEB92	10:56	600	M	13.65	2.903	4.826	BREAK	1.93	0.74
A155-02	15.5	12FEB92	11:39	600	R	13.65	2.903	4.826*	1.60*	--	--
A155-03	15.5	12FEB92	12:02	600	M	13.65	2.903	3.556	BREAK	1.95	0.76
A155-04	15.5	12FEB92	12:23	600	M	13.65	2.903	4.064	BREAK	--	0.76
A155-05	15.5	12FEB92	12:39	600	M	13.65	2.903	5.588	BREAK	--	0.73
A155-06	15.5	12FEB92	13:05	3600	M	13.65	2.903	4.826	VARY	1.63	--
A120-01	12.0	13FEB92	08:45	600	M	12.00	1.25	5.485	BREAK	0.67	0.37

Table 4.1 (cont'd)

Run Number	Scale Ratio 1:	Run Date	Run Time	Dura-tion (sec)	Mon or Rand	Depth@ Wavbrd (Ft)	Depth Model (Ft)	Wave Period (Sec)	Target Wave Ht. (Ft)	Measured Wave Ht.(Ft)	Wave-Maker Span
A120-02	12.0	13FEB92	09:13	1800	R	12.00	1.25	5.485*	1.0*	--	0.75
A120-03	12.0	13FEB92	10.01	600	M	12.00	1.25	4.042	BREAK	0.85	0.35
A120-04	12.0	13FEB92	10:18	600	M	12.00	1.25	4.619	BREAK	0.72	0.35
A120-05	12.0	13FEB92	10:37	600	M	12.00	1.25	6.351	BREAK	0.82	0.38
A120-06	12.0	13FEB92	10:52	600	M	12.00	1.25	5.485	BREAK	--	0.36
A452-01	4.52	13FEB92	11:22	600	M	11.75	1.0	2.826	BREAK	--	0.25
A452-02	4.52	13FEB92	11.44	600	M	11.75	1.0	2.826	BREAK	0.5	0.25
SD549-01	5.49	13FEB92	14:00	600	M	11.67	0.92	1.89	BREAK	0.5	1.0
SD549-02	5.49	13FEB92	14:16	600	M	11.67	0.92	2.565	BREAK	0.3+	0.45
CALIB-2	-	13FEB92	14:39	14400	--	--	--	--	--	--	--
B126-01	12.57	19FEB92	09:18	600	M	14.33	3.58	5.36	0.8	0.8	0.38
B126-02	12.57	19FEB92	09:32	600	M	14.33	3.58	5.36	1.2	1.23	0.55
B126-03	12.57	19FEB92	09:47	600	M	14.33	3.58	5.36	BREAK	2.75	0.93
B126-04	12.57	19FEB92	10:05	600	M	14.33	3.58	5.36	BREAK	2.75	0.93
B126-05	12.57	19FEB92	10:36	600	M	14.33	3.58	5.36	--	2.3	0.85
B126-06	12.57	19FEB92	11:15	1800	R	14.33	3.58	5.36*	1.97*	--	1.0
B126-07	12.57	19FEB92	11:58	600	M	14.33	3.58	6.21	BREAK	2.41	0.63
B126-08	12.57	19FEB92	13:38	600	M	14.33	3.58	4.51	BREAK	2.0	0.65
B126-09	12.57	19FEB92	13:55	600	M	14.33	3.58	3.95	--	2.3	0.63
B126-10	12.57	19FEB92	14:12	600	M	14.33	3.58	5.36	--	2.58	0.90
B126-11	12.57	19FEB92	14:30	600	R	14.33	3.58	5.36*	--	--	1.0
B126-12	12.57	19FEB92	14:53	600	M	14.33	3.58	5.64	--	2.65	0.60

Table 4.1 (cont'd)

Run Number	Scale Ratio 1:	Run Date	Run Time	Duration (sec)	Mon or Rand	Depth@ Wavbrd (Ft)	Depth Model (Ft)	Wave Period (Sec)	Target Wave Ht.(Ft)	Measured Wave Ht.(Ft)	Wave-Maker Span
B126-13	12.57	19FEB92	15:08	600	M	14.33	3.58	5.08	--	2.75	0.65
B126-14	12.57	19FEB92	16:30	600	M	13.14	2.39	5.36	--	2.02	0.65
B126-15	12.57	19FEB92	16:52	1800	R	13.14	2.39	5.36*	1.62*	--	1.0
B126-16	12.57	20FEB92	08:23	600	M	13.14	2.39	6.21	--	1.86	0.43
B126-17	12.57	20FEB92	08:39	600	M	13.14	2.39	4.51	--	1.34	0.41
B126-18	12.57	20FEB92	08:56	600	M	13.14	2.39	3.95	--	1.76	0.45
B126-19	12.57	20FEB92	10:13	600	M	11.94	1.19	5.36	--	0.78	0.33
B126-20	12.57	20FEB92	10:38	600	R	11.94	1.19	5.36*	1.0*	--	0.95
B100-01	10.00	20FEB92	13:21	600	M	13.75	3.0	6.0	--	2.26	0.50
B100-02	10.00	20FEB92	13:46	600	R	13.75	3.0	6.0*	2.03*	--	--
B857-01	8.57	20FEB92	14:52	600	M	14.25	3.5	6.49	--	2.58	0.60
B857-02	8.57	20FEB92	15:11	1800	M	14.25	3.5	6.49	--	2.58	0.60
B857-03	8.57	20FEB92	15.58	1800	R	14.25	3.5	6.49*	2.37*	--	1.0
B750-01	7.50	21FEB92	08:28	600	M	14.75	4.0	6.938	--	3.0	0.70
B750-02	7.50	21FEB92	08:58	600	M	14.75	4.0	6.938	1.0	1.1	0.35
B750-03	7.50	21FEB92	09:16	600	M	14.75	4.0	6.938	2.0	1.95	0.52
B750-04	7.50	21FEB92	09:35	600	M	14.75	4.0	6.938	1.5	1.46	0.43
B750-05	7.50	21FEB92	09:54	600	M	14.75	4.0	6.938	2.5	2.5	0.61
B113-01	11.3	21FEB92	10:39	600	M	14.75	4.0	5.665	--	1.7	0.50
B113-02	11.3	21FEB92	10:56	600	M	14.75	4.0	5.665	2.23	2.7	0.66
B113-03	11.3	21FEB92	11:31	1800	R	14.75	4.0	5.66*	1.81*	--	1.0
B113-04	11.3	21FEB92	12:19	1800	R	14.75	4.0	5.66*	3.60*	--	0.70
CALIB-3	-	21FEB92	15:48	14400	--	--	--	--	--	--	--

This log identifies model conditions associated with each numbered run including: scale ratio, date and time of experiment, duration of data sample, whether the test utilized random or monochromatic waves, the water depth at the wave board and at the model, the input wave period and height, the oscillograph observed wave height on the seaward side of the structure and the fractional equivalent of total wave maker span required to achieve the model wave condition. The asterisk at the reported random wave conditions refer to the input peak wave period and significant wave height.

Table 4.2 provides a log of video tape numbers associated with the recorded underwater and above water video documentation. Note that each video tape is specific to a location in the wave channel and typically includes a video record of several consecutive test runs. Therefore, the listed test run number corresponding to a particular video tape represents the first test run on the tape. The locations reported in the table are to be interpreted as follows: CALIB refers to calibration observations of the water surface rising on a one-tenth foot division staff on the side of the wave channel, used to calibrate the wave gauges; Seaward refers to an underwater video camera attached to the east wall of the wave channel and observing the seaward slope of the model through a wide angle lens; Leeward refers to an underwater video camera attached to the west wall of the wave channel and observing the leeward slope of the model through a telephoto lens; Surface refers to an above water video camera placed on a carriage which spanned the width of the wave channel and observed the leeward side of the structure and the waves interacting with the structure.

Table 4.2 Video Tape Log

Tape No.	Run No.	Tape No.	Run No.
1	CALIB-1	22	B126-01, Leeward
2	CALIB-1, cont'd	23	B126-01, Surface
3	A131-01, Seaward	24	B126-07, Surface
4	A131-01, Leeward	25	B126-10, Seaward
5	A131-01, Surface	26	B126-10, Leeward
6	A131-08, Surface	27	B126-15, Surface
7	A131-11, Seaward	28	B126-16, Surface
8	A131-11, Leeward	29	B126-16, Seaward
9	A131-13, Seaward	30	B126-16, Leeward
10	A131-13, Leeward	31	B857-03, Seaward
11	A131-13, Surface	32	B857-03, Leeward
12	A155-06, Surface	33	B857-02, Surface
13	A155-06, Seaward	34	B750-01, Surface
14	A155-06, Leeward	35	B750-01, Seaward
15	A120-01, Seaward	36	B750-01, Leeward
16	A120-01, Leaward	37	B113-03, Surface
17	A120-01, Surface	38	B113-04, Leeward
18	CALIB-2	39	B113-04, Seaward
19	CALIB-2, cont'd	40	CALIB-3
20	Armor Rock Const.	41	CALIB-3, cont'd
21	B126-01, Seaward	42	Pump Down

The Appendix summarizes the analyzed data for each data run on a single page. The run number is referred to as "Test Identification." The first column summarizes data on the seaward side of the structure. The second column summarizes data on the leeward side of the structure. The third column summarizes data for the wave gauge at the center of the structure and the two current meters. At the top of the first two columns, the model water depth is listed followed by the "Data Channels used to compute Coefficients" and "Distance between channels in feet." The data channel numbers refer to the numbers in column one of Table 3.1. The distance between channels refers to wave gauge spacing, which is the difference between numbers reported in column four of Table 3.1. The latter is required input to Goda's analysis for separating the incident and reflected waves. The spacing between wave gauge pairs used in the Goda analysis is given the symbol DL and is reported for each data set. Thus, in column one of the Appendix, combining channels 1 and 2 corresponds to DL = 7.0 ft; combining channels 2 and 3 corresponds to DL = 2.5 ft and combining channels 1 and 3 corresponds to DL = 9.5 ft.

For each of three wave gauge combinations, a summary of the "Incident wave energy" and "Reflected wave energy" is reported in the Appendix. In each case, the raw wave energy spectrum is smoothed with a 13 component box car averaging scheme. The resulting "Total smoothed energy" is listed in model units of ft^2; this is the total energy integrated under the power spectrum cι ⁻ꞌe and is equal to the variance of the water surface profiles. Energy is conserved by the smoothing process. The "Maximum smoothed value" is the peak value of the

power spectral density curve in model units of ft²-sec. The "First moment" and "Second moment" of the power spectral density are related to shape factors of skewness and kurtosis, indicating asymmetry and peakedness, respectively. The zero moment wave height, "H_{mo}," is four times the square root of the "Total smoothed energy" and is equivalent to the significant wave height for deep water waves. It is the wave height parameter chosen for quantifying the water surface profile in this study. The wave period at the peak in the spectral density curve is "Tp." In some instances, very asymmetric monochromatic waves will yield at peak at a sub-harmonic or super-harmonic of the target wave period. The "Reflection coefficient" is simply the zero moment wave height of the reflected wave divided by the zero-moment wave height of the incident wave. This information is repeated in the Appendix for three wave gauge spacings on the seaward side of the structure (column one) and three wave gauge spacings on the leeward side of the structure (column 2). The incident wave in column two represents the wave transmitted beyond the structure. The reflected wave in column 2 represents the wave reflected from the 1:12 sloped concrete beach.

The third column in the Appendix presents three types of wave information. The first group quantifies the total wave energy, incident plus reflected, at Wave Gauge 4 located on the seaward side of the model, on the east wall opposite the model centerline. The results are indicative of the total wave energy at the structure. The quantities presented are identical in character to that from the wave gauge pairs except the reflected wave cannot be separated from the

incident wave with a single, local wave measurement. Thus, no reflection coefficient is quantified from Wave Gauge 4.

The remaining groups of data in column 3 of the Appendix are interpretations of the current meter measurements. The three axis sonic current meters were located six inches above the seabed, approximately one foot from the toe of the structure on seaward and leeward sides. Power spectral densities of horizontal and vertical velocity components were resolved from these measurements. Separation of incident and reflected wave effects were not possible with the single, local velocity measurements. The data provided is analogous to that described for the surface wave profile measurements. Note that the zero-moment velocity height, "U_{mo}" is similar to the zero moment wave height. It is a double amplitude representation of a simple harmonic velocity with energy equal to twice the variance of the actual time series. It could be interpreted as the double amplitude velocity associated with the significant wave. Identical data sets are provided for both the horizontal and vertical velocity components on both the seaward and leeward sides of the structure.

Table 4.3 summarizes significant measured hydrodynamic parameters from the Appendix at model scale for each run condition identified in Table 4.1. Only results which include a peak period within 25% of the target period for each test run are summarized. Where multiple estimates of incident or reflected wave conditions are within 25% of the target wave period, an average of the tabulated values is computed. If the peak measured period is not within 25% of the target period, that portion of the summary is left blank. However, the full data summary

Table 4.3 Summary of Hydrodynamic Properties - Model Scale

Run Number	Model Depth (ft)	Mono or Rand	Incident Wave				Model Center		Transmitted Wave			
			Tp (sec)	Model Kr	Umo (fps)	Hmo (ft)	Tp (sec)	Hmo (ft)	Tp (sec)	Beach Kr	Umo (fps)	Hmo (ft)
A131-01	2.29	M	5.278	0.184	3.235	0.718	5.224	0.833	5.278	0.330	0.487	0.487
A131-02	2.29	M	5.278	0.210	3.927	0.973	5.224	1.270	5.278	0.370	--	0.498
A131-03	2.29	M	5.278	0.211	3.928	0.969	5.224	1.275	5.224	0.378	3.488	0.501
A131-04	2.29	M	5.260	0.235	3.939	1.007	--	--	5.278	0.388	--	0.472
A131-05	2.29	M	5.278	0.236	3.926	1.006	--	--	5.278	0.393	--	0.475
A131-06	2.29	M	5.953	0.146	3.940	1.073	5.953	1.187	5.953	0.182	3.443	0.591
A131-07	2.29	M	5.953	0.145	3.975	1.062	5.953	1.038	5.953	0.185	3.450	0.602
A131-08	2.29	M	4.531	0.214	--	1.100	4.531	1.101	4.531	0.303	3.848	0.644
A131-09	2.29	M	3.821	0.087	4.053	0.957	--	--	3.840	0.118	--	0.598
A131-10	2.29	M	5.260	0.250	3.923	1.025	--	--	5.278	0.314	--	0.582
A131-11	2.29	R	5.447	0.209	3.263	0.799	5.689	0.923	5.689	0.232	3.006	0.805
A131-12	2.29	R	5.447	0.238	3.353	0.813	5.447	0.965	5.447	0.241	3.080	0.813
A131-13	2.29	M	5.278	0.233	3.919	1.015	--	--	5.278	0.402	--	0.488
A131-14	2.29	R	5.505	0.223	3.085	0.767	5.505	0.916	5.505	0.233	2.877	0.744
A155-01	2.90	M	4.613	0.180	4.807	1.457	4.741	1.591	4.613	0.280	4.127	0.883
A155-02	2.90	R	5.004	0.196	3.510	0.982	5.020	1.126	5.020	0.200	3.269	0.975
A155-03	2.90	M	3.683	0.211	5.428	1.559	3.683	2.068	3.649	0.190	4.330	1.563
A155-04	2.90	M	4.231	0.103	4.448	1.284	--	--	3.949	0.218	4.712	1.382
A155-05	2.90	M	5.560	0.170	4.461	1.458	5.689	1.675	--	--	3.935	--
A155-06	2.90	M	4.785	0.114	3.459	0.972	4.785	1.144	4.763	0.164	3.065	0.843
A120-01	1.25	M	5.408	0.383	2.775	0.553	5.447	0.508	5.389	0.890	1.965	0.231

Table 4.3 (cont'd)

Run Number	Model Depth (ft)	Mono or Rand	Incident Wave				Model Center		Transmitted Wave			
			Tp (sec)	Model Kr	Umo (fps)	Hmo (ft)	Tp (sec)	Hmo (ft)	Tp (sec)	Beach Kr	Umo (fps)	Hmo (ft)
A120-02	1.25	R	5.689	0.326	2.128	0.367	5.689	0.404	---	---	1.760	---
A120-03	1.25	M	4.080	0.293	---	48.100	---	---	4.052	0.342	---	0.602
A120-04	1.25	M	4.719	0.262	---	0.496	---	---	4.741	0.386	---	0.234
A120-05	1.25	M	4.726	0.257	---	0.550	---	---	4.741	0.398	---	0.210
A120-06	1.25	M	5.428	0.374	2.801	0.560	5.447	0.636	5.447	0.146	---	2.480
A452-01	1.00	M	3.282	0.621	2.839	0.174	---	---	3.003	0.427	1.749	0.412
A452-02	1.00	M	2.909	0.688	3.101	0.312	---	---	2.846	0.487	1.507	0.599
SD549-01	0.92	M	---	---	---	---	---	---	---	---	---	---
SD549-02	0.92	M	3.122	0.649	2.846	---	2.462	0.329	2.867	0.361	1.621	0.239
B126-01	3.58	M	5.389	0.111	2.893	0.911	5.389	0.940	5.370	0.125	2.429	0.793
B126-02	3.58	M	5.389	0.108	3.906	1.308	5.333	1.404	5.370	0.149	3.415	1.163
B126-03	3.58	M	5.389	0.127	5.012	1.842	5.333	2.122	---	---	4.868	---
B126-04	3.58	M	5.389	0.135	5.165	1.918	5.333	2.236	---	---	4.977	---
B126-05	3.58	M	5.389	0.127	5.071	1.842	5.333	2.143	---	---	4.978	---
B126-06	3.58	R	5.220	0.196	4.162	1.322	5.565	1.498	5.488	0.200	3.894	1.182
B126-07	3.58	M	6.169	0.169	5.717	1.994	6.169	1.966	6.244	0.178	4.687	1.339
B126-08	3.58	M	4.491	0.172	5.221	1.881	4.491	1.722	4.491	0.124	4.623	1.239
B126-09	3.58	M	3.969	0.105	5.576	1.984	3.969	2.161	3.969	0.138	5.115	1.921
B126-10	3.58	M	5.389	0.129	5.216	1.886	5.333	2.242	---	---	5.117	---
B126-11	3.58	R	5.347	0.187	3.896	1.218	5.626	1.368	5.626	0.206	3.700	1.131
B126-12	3.58	M	5.753	0.207	5.193	1.980	5.753	2.168	---	---	5.291	---
B126-13	3.58	M	5.172	0.205	5.542	2.139	5.172	2.203	5.224	0.247	4.765	1.450

Table 4.3 (cont'd)

Run Number	Model Depth (ft)	Mono or Rand	Incident Wave				Model Center		Transmitted Wave			
			Tp (sec)	Model Kr	Umo (fps)	Hmo (ft)	Tp (sec)	Hmo (ft)	Tp (sec)	Beach Kr	Umo (fps)	Hmo (ft)
B126-14	2.39	M	5.352	0.209	3.710	1.088	5.333	1.554	5.333	0.304	4.090	0.457
B126-15	2.39	R	5.608	0.233	3.473	0.916	5.626	1.035	5.626	0.252	3.268	0.768
B126-16	2.39	M	6.169	0.180	4.192	1.197	6.169	1.275	6.169	0.198	3.662	0.638
B126-17	2.39	M	4.518	0.133	3.974	1.185	--	--	4.531	0.306	--	0.695
B126-18	2.39	M	3.969	0.182	--	1.201	3.969	1.550	3.969	0.138	3.859	1.099
B126-19	1.19	M	5.352	0.276	2.649	0.500	--	--	5.389	0.249	--	0.213
B126-20	1.19	R	5.505	0.361	2.352	0.444	5.505	0.468	--	--	1.998	--
B100-01	3.00	M	5.953	0.199	4.720	1.530	5.953	1.741	--	--	4.279	--
B100-02	3.00	R	6.321	0.214	4.173	1.246	6.321	1.276	6.169	0.224	3.852	0.957
B857-01	3.50	M	6.827	0.173	5.613	1.852	6.827	2.004	6.827	0.191	4.762	1.161
B857-02*	3.50	M	6.607	0.177	5.175	1.854	6.481	2.003	6.361	0.185	4.506	1.156
B857-03	3.50	R	6.919	0.235	4.747	1.487	6.919	1.479	6.919	0.241	4.768	1.154
B750-01	4.00	M	6.827	0.179	6.333	2.156	6.827	2.044	6.827	0.199	5.827	1.210
B750-02	4.00	M	7.211	0.123	4.035	1.242	7.111	1.200	7.111	0.102	4.028	1.087
B750-03	4.00	M	7.211	0.108	5.495	1.827	7.111	1.838	7.111	0.138	5.808	1.575
B750-04	4.00	M	7.211	0.130	4.890	1.524	7.111	1.518	7.111	0.106	4.726	1.300
B750-05	4.00	M	7.529	0.161	6.416	1.891	6.737	2.154	7.111	0.189	6.397	1.491
B113-01	4.00	M	5.626	0.151	4.947	1.785	5.626	1.786	--	--	5.222	--
B113-02	4.00	M	5.626	0.206	5.981	2.251	5.626	2.273	--	--	5.936	--
B113-03	4.00	R	5.953	0.152	3.919	1.374	5.953	1.403	5.675	0.167	4.049	1.145
B113-04	4.00	R	6.095	0.194	5.073	1.798	6.095	1.785	6.095	0.200	5.182	1.512

* current meter data divided by scale factor of 10

is included in the Appendix for all run conditions. "Incident wave" characteristics are summarized from the seaward side of the structure, column 1 in the Appendix. "Transmitted wave" characteristics are summarized from the leeward side of the structure, column 2 in the Appendix. "Model Center" present results from Wave Gauge 4.

Table 4.4 summarizes the measured hydrodynamic parameters at prototype scale for each run condition identified in Table 4.1. Values reported in Table 4.4 are based on Table 4.3 values which are scaled by Froude number as discussed in section 2.2 of this report. Wave height and water depth are scaled in direct proportion to the length scale while wave period and velocity are scaled in proportion to the square root of the length scale.

4.4 Graphical Summary of Wave Conditions

A graphic presentation of significant hydrodynamic parameters is divided into two groups corresponding to the two phases of testing. The two phases are the existing armor condition and the proposed armor condition. For each phase, graphical summaries are provided of the wave steepness, reflection and transmission coefficients and dimensionless wave orbital velocity. The results are graphed as functions of the dimensionless relative depth, i.e., the ratio of the water depth to the linear wave theory deep water wave length. The latter represents a rational method of combining water depth and wave period as

Table 4.4 Summary of Hydrodynamic Properties - Prototype Scale

Run Number	Model Depth (ft)	Mono or Rand	Incident Wave				Model Center		Transmitted Wave			
			Tp (sec)	Model Kr	Umo (fps)	Hmo (ft)	Tp (sec)	Hmo (ft)	Tp (sec)	Beach Kr	Umo (fps)	Hmo (ft)
A131-01	30.00	M	19.103	0.184	11.709	9.406	18.908	10.912	19.103	0.330	1.763	6.380
A131-02	30.00	M	19.103	0.210	14.213	12.746	18.908	16.637	19.103	0.370	--	6.524
A131-03	30.00	M	19.103	0.211	14.217	12.694	18.908	16.703	18.908	0.378	12.624	6.563
A131-04	30.00	M	19.038	0.235	14.257	13.192	--	--	19.103	0.388	--	6.183
A131-05	30.00	M	19.103	0.236	14.210	13.179	--	--	19.103	0.393	--	6.223
A131-06	30.00	M	21.546	0.146	14.260	14.056	21.546	15.550	21.546	0.182	12.462	7.742
A131-07	30.00	M	21.546	0.145	14.387	13.912	21.546	13.598	21.546	0.185	12.487	7.886
A131-08	30.00	M	16.399	0.214	--	14.410	16.399	14.423	16.399	0.303	13.927	8.436
A131-09	30.00	M	13.830	0.087	14.669	12.537	--	--	13.898	0.118	--	7.834
A131-10	30.00	M	19.038	0.250	14.199	13.428	--	--	19.103	0.314	--	7.624
A131-11	30.00	R	19.715	0.209	11.810	10.467	20.591	12.091	20.591	0.232	10.880	10.546
A131-12	30.00	R	19.715	0.238	12.136	10.650	19.715	12.642	19.715	0.241	11.148	10.650
A131-13	30.00	M	19.103	0.233	14.184	13.296	--	--	19.103	0.402	--	6.393
A131-14	30.00	R	19.925	0.223	11.166	10.048	19.925	12.000	19.925	0.233	10.413	9.746
A155-01	44.95	M	18.161	0.180	18.925	22.584	18.665	24.661	18.161	0.280	16.248	13.687
A155-02	44.95	R	19.701	0.196	13.819	15.221	19.764	17.453	19.764	0.200	12.870	15.113
A155-03	44.95	M	14.500	0.211	21.370	24.165	14.500	32.054	14.366	0.190	17.047	24.227
A155-04	44.95	M	16.657	0.103	17.512	19.902	--	--	15.547	0.218	18.551	21.421
A155-05	44.95	M	21.890	0.170	17.563	22.599	22.398	25.963	--	--	15.492	--
A155-06	44.95	M	18.839	0.114	13.618	15.066	18.839	17.732	18.752	0.164	12.067	13.067
A120-01	15.00	M	18.734	0.383	9.613	6.636	18.869	6.096	18.668	0.890	6.807	2.772

Table 4.4 (cont'd)

Run Number	Model Depth (ft)	Mono or Rand	Incident Wave Tp (sec)	Incident Wave Model Kr	Incident Wave Umo (fps)	Incident Wave Hmo (ft)	Model Center Tp (sec)	Model Center Hmo (ft)	Transmitted Wave Tp (sec)	Transmitted Wave Beach Kr	Transmitted Wave Umo (fps)	Transmitted Wave Hmo (ft)
A120-02	15.00	R	19.707	0.326	7.372	4.404	19.707	4.848	--	--	6.097	--
A120-03	15.00	M	14.134	0.293	--	5.772	--	--	14.037	0.342	--	7.224
A120-04	15.00	M	16.347	0.262	--	5.952	--	--	16.423	0.386	--	2.808
A120-05	15.00	M	16.371	0.257	--	6.600	--	--	16.423	0.398	--	2.520
A120-06	15.00	M	18.803	0.374	9.703	6.720	18.869	7.632	18.869	0.146	--	29.760
A452-01	4.52	M	6.978	0.621	6.036	0.786	--	--	6.384	0.427	3.718	1.862
A452-02	4.52	M	6.185	0.688	6.593	1.410	--	--	6.051	0.487	3.204	2.707
SD549-01	5.05	M	0.000	--	--	--	--	--	--	--	--	--
SD549-02	5.05	M	7.315	0.649	6.668	--	5.769	1.806	6.718	0.361	3.798	1.312
B126-01	45.00	M	19.106	0.111	10.257	11.451	19.106	11.816	19.039	0.125	8.612	9.968
B126-02	45.00	M	19.106	0.108	13.848	16.442	18.908	17.648	19.039	0.149	12.108	14.619
B126-03	45.00	M	19.106	0.127	17.770	23.154	18.908	26.674	--	--	17.259	--
B126-04	45.00	M	19.106	0.135	18.312	24.109	18.908	28.107	--	--	17.646	--
B126-05	45.00	M	19.106	0.127	17.979	23.154	18.908	26.938	--	--	17.649	--
B126-06	45.00	R	18.507	0.196	14.756	16.618	19.730	18.830	19.457	0.200	13.806	14.858
B126-07	45.00	M	21.872	0.169	20.269	25.065	21.872	24.713	22.138	0.178	16.617	16.831
B126-08	45.00	M	15.922	0.172	18.511	23.644	15.922	21.646	15.922	0.124	16.390	15.574
B126-09	45.00	M	14.072	0.105	19.769	24.939	14.072	27.164	14.072	0.138	18.135	24.147
B126-10	45.00	M	19.106	0.129	18.493	23.707	18.908	28.182	--	--	18.142	--
B126-11	45.00	R	18.957	0.187	13.813	15.310	19.947	17.196	19.947	0.206	13.118	14.217
B126-12	45.00	M	20.397	0.207	18.411	24.889	20.397	27.252	--	--	18.759	--
B126-13	45.00	M	18.337	0.205	19.649	26.887	18.337	27.692	18.521	0.247	16.894	18.227

Table 4.4 (cont'd)

Run Number	Model Depth (ft)	Mono or Rand	Incident Wave				Model Center		Transmitted Wave			
			Tp (sec)	Model Kr	Umo (fps)	Hmo (ft)	Tp (sec)	Hmo (ft)	Tp (sec)	Beach Kr	Umo (fps)	Hmo (ft)
B126-14	30.04	M	18.975	0.209	13.154	13.676	18.908	19.534	18.908	0.304	14.501	5.744
B126-15	30.04	R	19.883	0.233	12.313	11.514	19.947	13.010	19.947	0.252	11.586	9.654
B126-16	30.04	M	21.872	0.180	14.862	15.046	21.872	16.027	21.872	0.198	12.983	8.020
B126-17	30.04	M	16.018	0.133	14.089	14.895	---	---	16.064	0.306	---	8.736
B126-18	30.04	M	14.072	0.182	---	15.097	14.072	19.484	14.072	0.138	13.682	13.814
B126-19	14.96	M	18.975	0.276	9.392	6.285	---	---	19.106	0.249	---	2.677
B126-20	14.96	R	19.518	0.361	8.339	5.581	19.518	5.883	---	---	7.084	---
B100-01	30.00	M	18.825	0.199	14.926	15.300	18.825	17.410	---	---	13.531	---
B100-02	30.00	R	19.989	0.214	13.196	12.460	19.989	12.760	19.508	0.224	12.181	9.570
B857-01	30.00	M	19.986	0.173	16.432	15.872	19.986	17.174	19.986	0.191	13.941	9.950
B857-02*	30.00	M	19.342	0.177	15.150	15.889	18.973	17.166	18.622	0.185	13.191	9.907
B857-03	30.00	R	20.255	0.235	13.897	12.744	20.255	12.675	20.255	0.241	13.958	9.890
B750-01	30.00	M	18.697	0.179	17.344	16.170	18.697	15.330	18.697	0.199	15.958	9.075
B750-02	30.00	M	19.748	0.123	11.050	9.315	19.474	9.000	19.474	0.102	11.031	8.153
B750-03	30.00	M	19.748	0.108	15.049	13.703	19.474	13.785	19.474	0.138	15.906	11.813
B750-04	30.00	M	19.748	0.130	13.392	11.430	19.474	11.385	19.474	0.106	12.943	9.750
B750-05	30.00	M	20.619	0.161	17.571	14.183	18.450	16.155	18.450	0.189	17.519	11.183
B113-01	45.20	M	18.912	0.151	16.630	20.171	18.912	20.182	18.912	---	17.554	---
B113-02	45.20	M	18.912	0.206	20.105	25.436	18.912	25.685	18.912	---	19.954	---
B113-03	45.20	R	20.011	0.152	13.174	15.526	20.011	15.854	19.077	0.167	13.611	12.939
B113-04	45.20	R	20.489	0.194	17.053	20.317	20.489	20.171	20.489	0.200	17.420	17.086

$$L_0 = \frac{g\,T^2}{2\,\pi}$$

where L_0 = linear wave theory deep water wave length

    g = gravitational constant

    T = wave period

Figures 4.1 and 4.2 provide graphs of the non-dimensional zero-moment wave height versus non-dimensional water depth for various depths. A theoretical breaking wave limit (Dean 1974) is provided for comparison. The plotted points determined from analysis of recorded data are well grouped on both graphs and follow a general trend similar to and below the theoretical limit. This demonstrates that the experimental conditions were approaching the theoretical extreme wave environment. It should be noted that laboratory wave observations have demonstrated that maximum experimental wave heights are approximately 75% of the maximum theoretical breaking wave height. This observation is confirmed by Figures 4.1 and 4.2. The figures include both random and monochromatic test results. No significant trends relative to absolute values of water depth are apparent.

Figures 4.3 and 4.4 are graphs of the non-dimensional reflection coefficient of the model versus non-dimensional depth for each phase of testing. Ahrens (1987) provides an empirical expression for wave reflection from a reef breakwater as follows:

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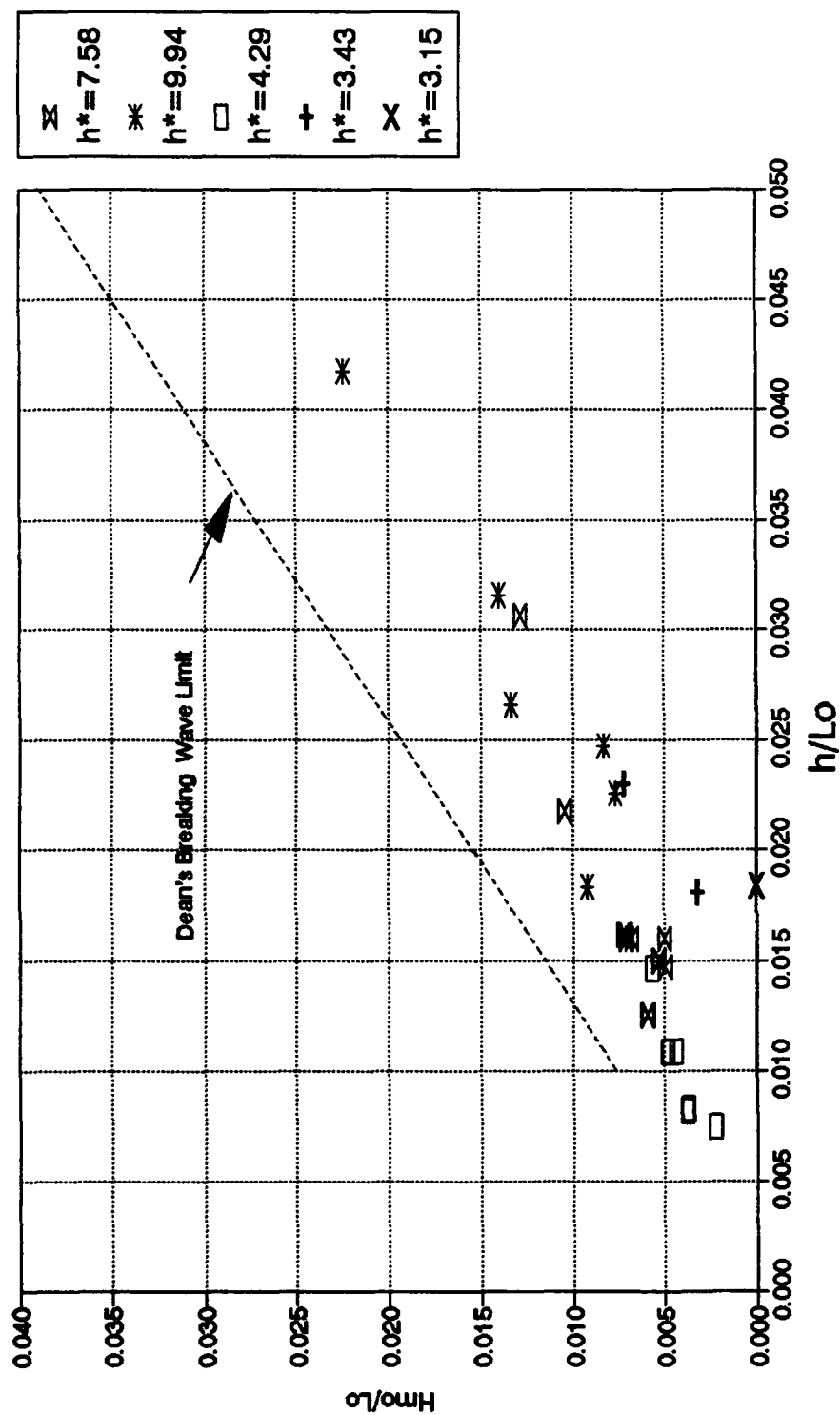
Figure 4.1 Wave steepness versus dimensionless depth for existing condition
(relative depth, h*, is non-dimensionalized by pipe diameter)
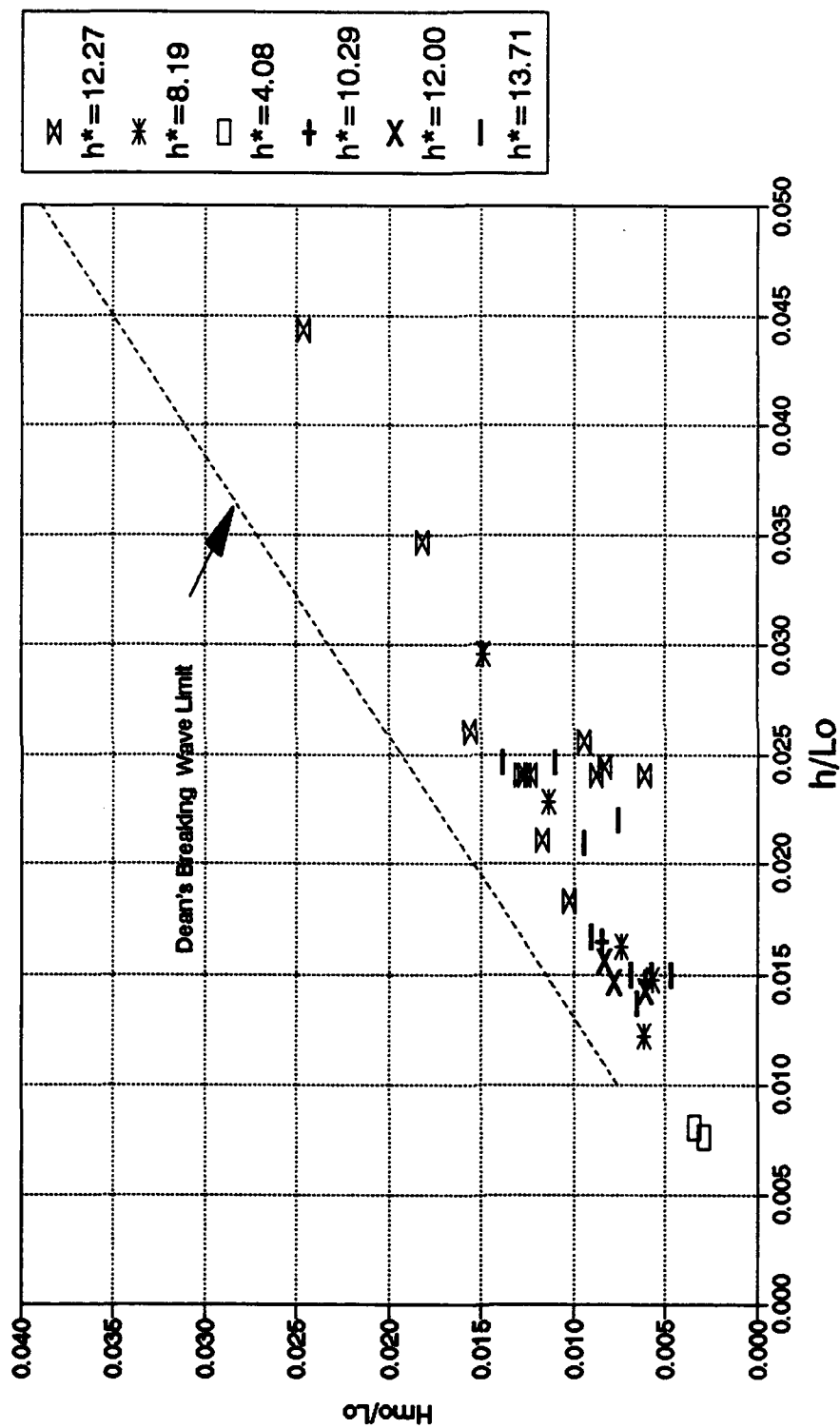
Figure 4.2 Wave steepness versus dimensionless depth for proposed armoring (relative depth, h*, is non-dimensionalized by pipe diameter)
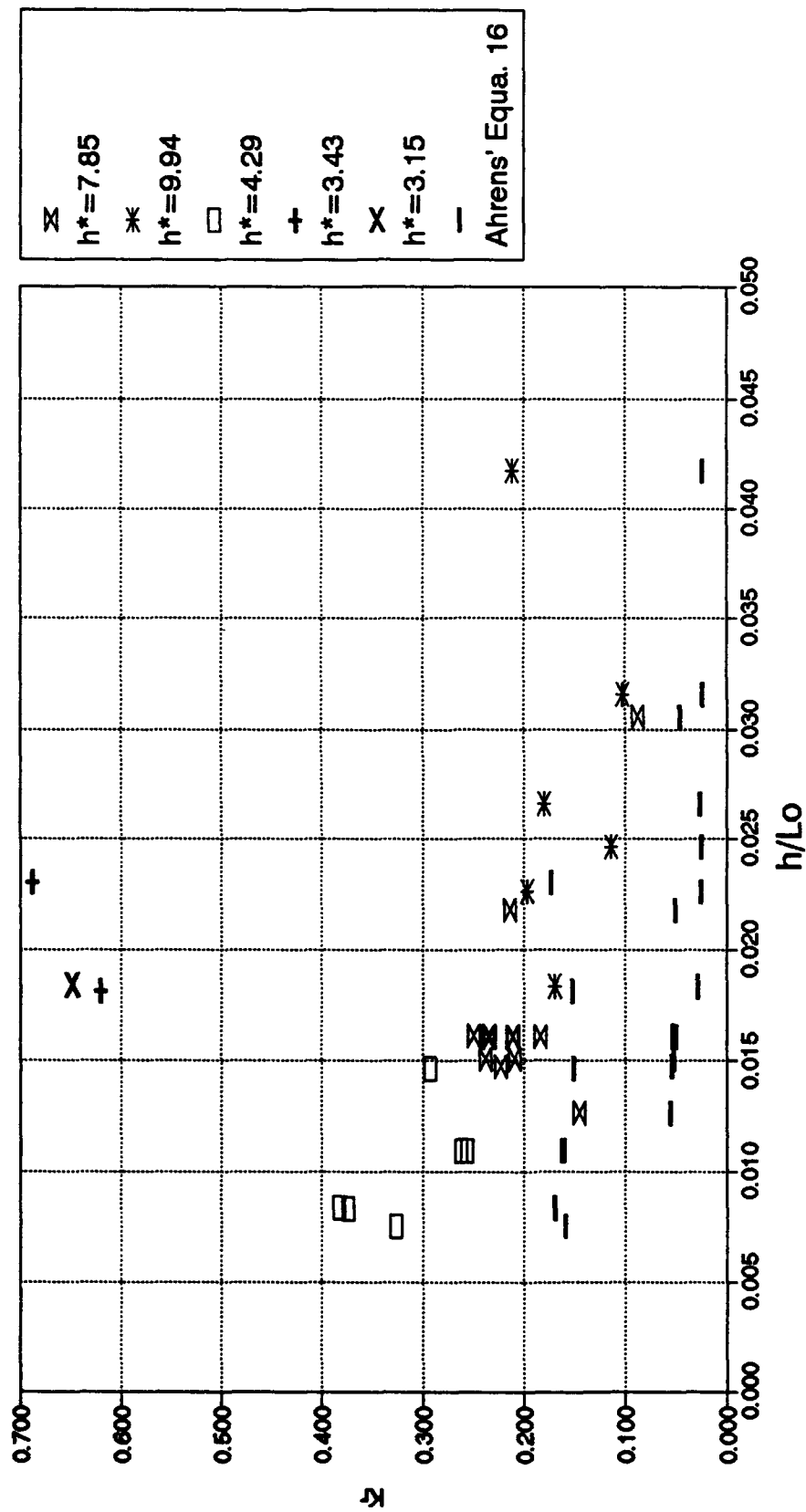
Figure 4.3 Reflection coefficient versus dimensionless depth for existing condition (relative depth, h*, is non-dimensionalized by pipe diameter)
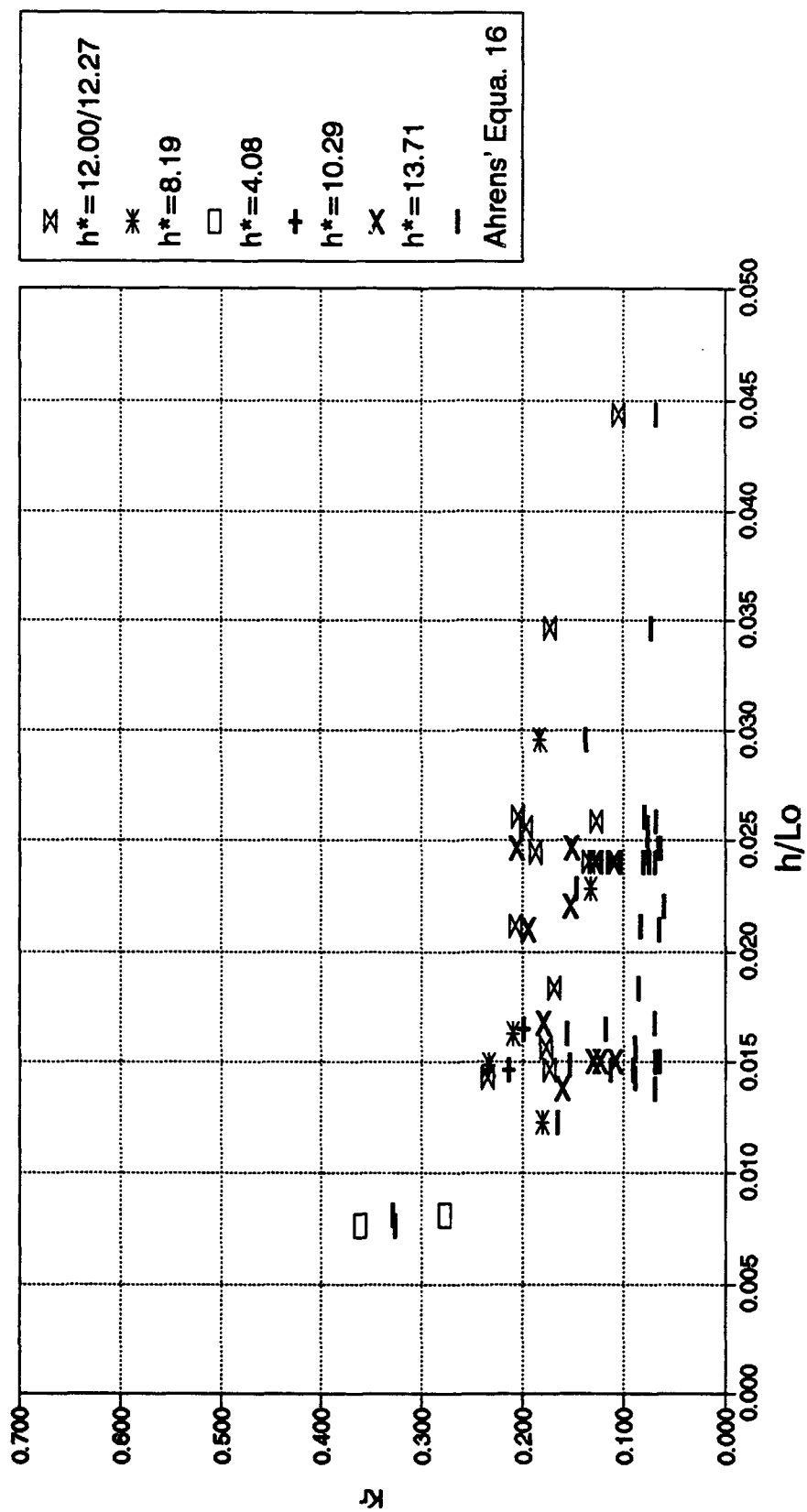
Figure 4.4   Reflection coefficient versus dimensionless depth for proposed armoring (relative depth, h*, is non-dimensionalized by pipe diameter)

$$K_r = \exp\left[c_1\left(\frac{d_s}{L_p}\right) + \frac{c_2}{(h_c/d_s)} + c_3\left(\frac{A_t}{h_c^2}\right) + c_4\left(\frac{F}{H_{mo}}\right)\right]$$

where; c_1 = -6.774 c_3 = -0.0860

          c_2 = -0.293 c_4 = +0.0833

and; d_s = Water depth at toe of breakwater

          L_p = Airy wave length

          h_c = Crest height of breakwater

          A_t = Cross-sectional area of the breakwater

          F = Freeboard of the structure

          H_{mo}= Incident zero-moment wave height

This expression is plotted as Ahrens' Equation 16 on each graph for comparison. In each phase of testing, the reflection coefficients obtained from analysis of the recorded data were grouped reasonably well but were considerably higher than those calculated from Ahrens' formula. One explanation for this difference is that a portion of the transmitted wave energy which was reflected from the beach slope at the end of the wave channel was again transmitted through the model to appear as additional reflected wave energy from the model. The data do demonstrate that longer waves, lower h/L_o, experience greater reflection. This is consistent with the observed behavior of other coastal structures as well.

Wave transmission coefficients for the model are similarly presented in Figures 4.5 and 4.6, and are compared to Ahrens' expression for wave
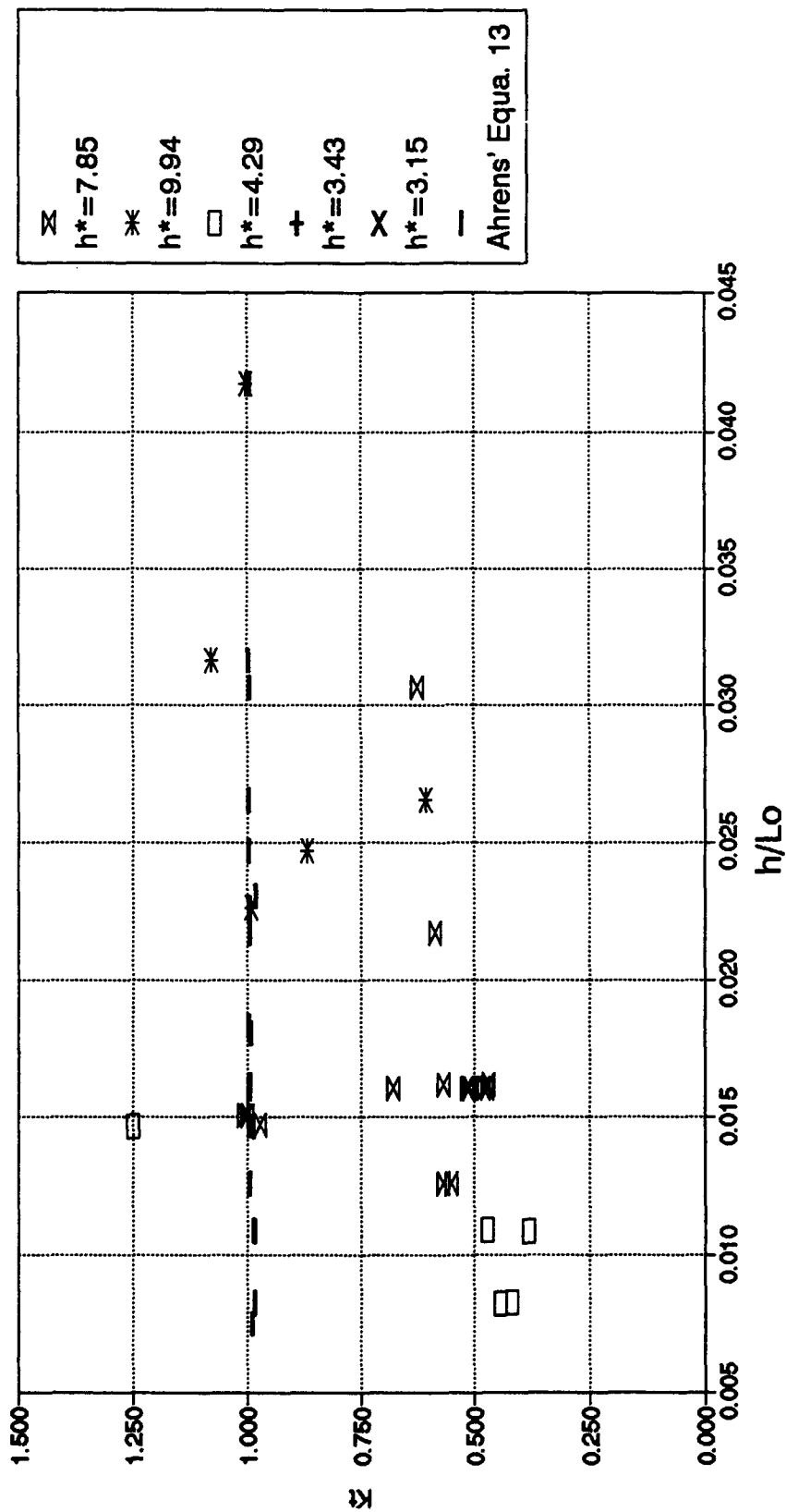
Figure 4.5 Transmission coefficient versus dimensionless depth for existing condition
(relative depth, h*, is non-dimensionalized by pipe diameter)
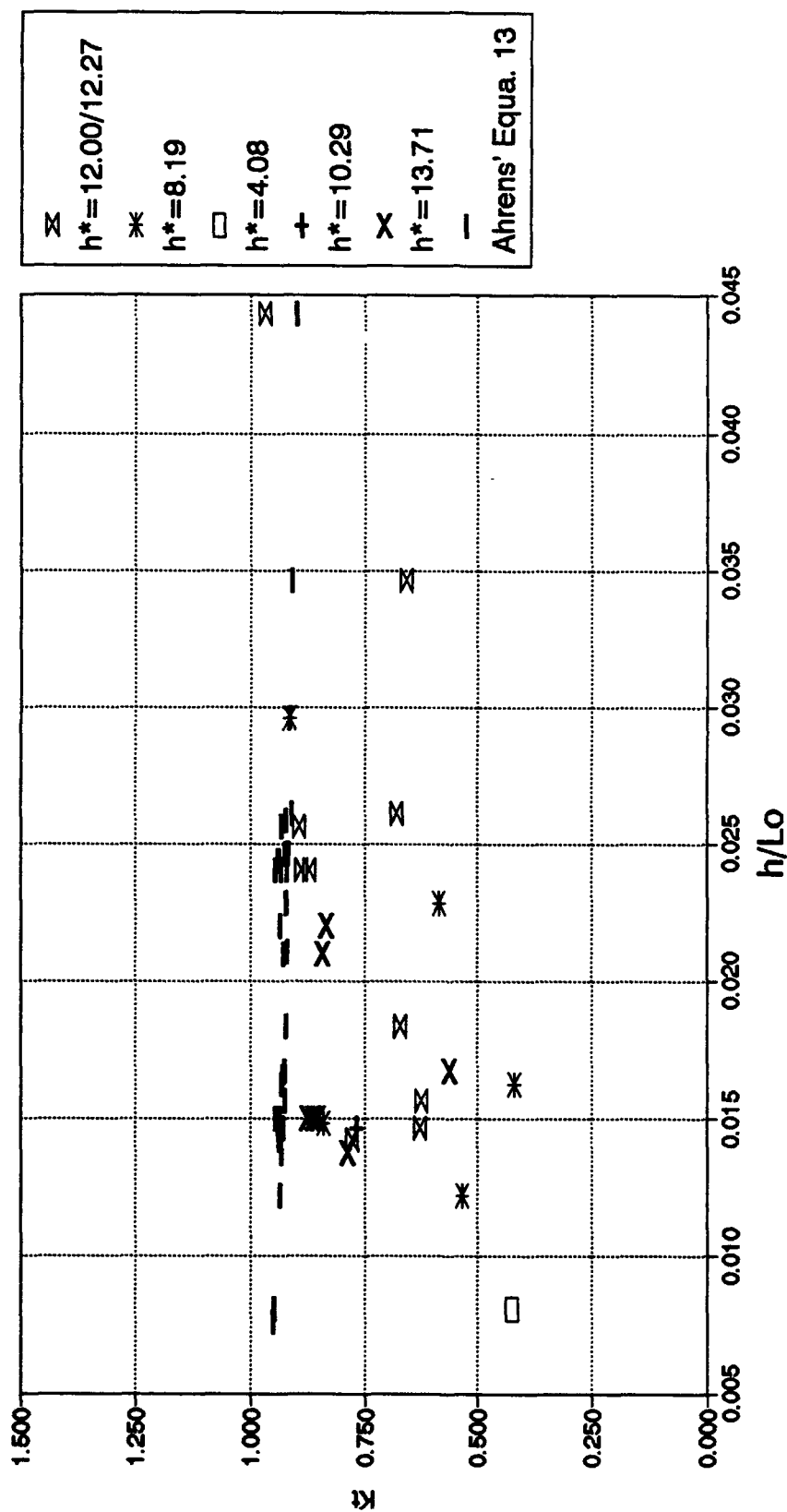
Figure 4.6 Transmission coefficient versus dimensionless depth for proposed armoring (relative depth, h*, is non-dimensionalized by pipe diameter)

transmission through a reef breakwater. Ahrens' wave transmission coefficient

(Ahrens, 1987) is plotted as Ahrens' Equation 13 on each graph and is given by:

$$K_t = \frac{1.0}{1.0 + \left(\dfrac{h_c}{d_s}\right)^{c_1} \left(\dfrac{A_t}{d_s L_p}\right)^{c_2} \exp\left[c_3\left(\dfrac{F}{H_{mo}}\right) + c_4\left(\dfrac{A_t^{3/2}}{d_{50}^2 L_p}\right)\right]}$$

where; $c_1 = 1.188$ $c_3 = 0.529$

             $c_2 = 0.261$ $c_4 = 0.00551$

and; h_c = Crest height of breakwater

            d_s = Water depth at toe of breakwater

            A_t = Cross-sectional area of the breakwater

            L_p = Airy wave length

            F = Freeboard of the breakwater

            H_{mo} = Incident zero-moment wave height

            d_{50} = typical dimension of the median stone

Transmission coefficients were calculated from the results of analysis using the

expression:

$$K_t = H_{mo}(transmitted)/H_{mo}(incident)$$

where the H_{mo} quantities are evaluated in Tables 4.3 and 4.4. In each phase of

testing, the transmission coefficients obtained from analysis of the recorded data

were grouped reasonably well and were in a range to be expected for wave

transmission under the given test conditions. In both cases, Ahrens' expression

plotted near unity for every test run, which indicates that his expression is not well conditioned for this set of data. The recorded data imply smaller transmission for longer waves, a result which is consistent with greater reflection being observed for longer waves. The longer waves also experienced greater losses due to breaking on the structure, thereby reducing the transmission coefficient.

Horizontal velocity near the toe of the seaward side of the model is non-dimensionalized and plotted versus non-dimensional water depth in Figures 4.7 and 4.8. Dean (1984) provides theoretical velocities for Case A (25% of the breaking wave height) and Case D (full breaking wave height), which are plotted for comparison. Since the velocities determined from analysis of the recorded wave data are zero-moment height or double-amplitude velocities, the non-dimensionalized values from Dean's tables are doubled to conform to the same definition. Similar trends are observed between the theoretical predictions and the measured dimensionless velocity. In general, steeper waves experience greater decay of velocity with depth. This is demonstrated in Case D lying below Case A and the data from Gauge 4 (model center) occurring near the minimum of the recorded results. Similarly, the transmitted data yields the larger values of dimensionless velocity for minimum values of wave height.

4.5 Selective Removal of Rock

During the first phase of testing, the model incurred severe wave damage and was rebuilt in the same configuration to complete that phase of testing. Post-test rock samples were taken from both sides of the model and from the rock that
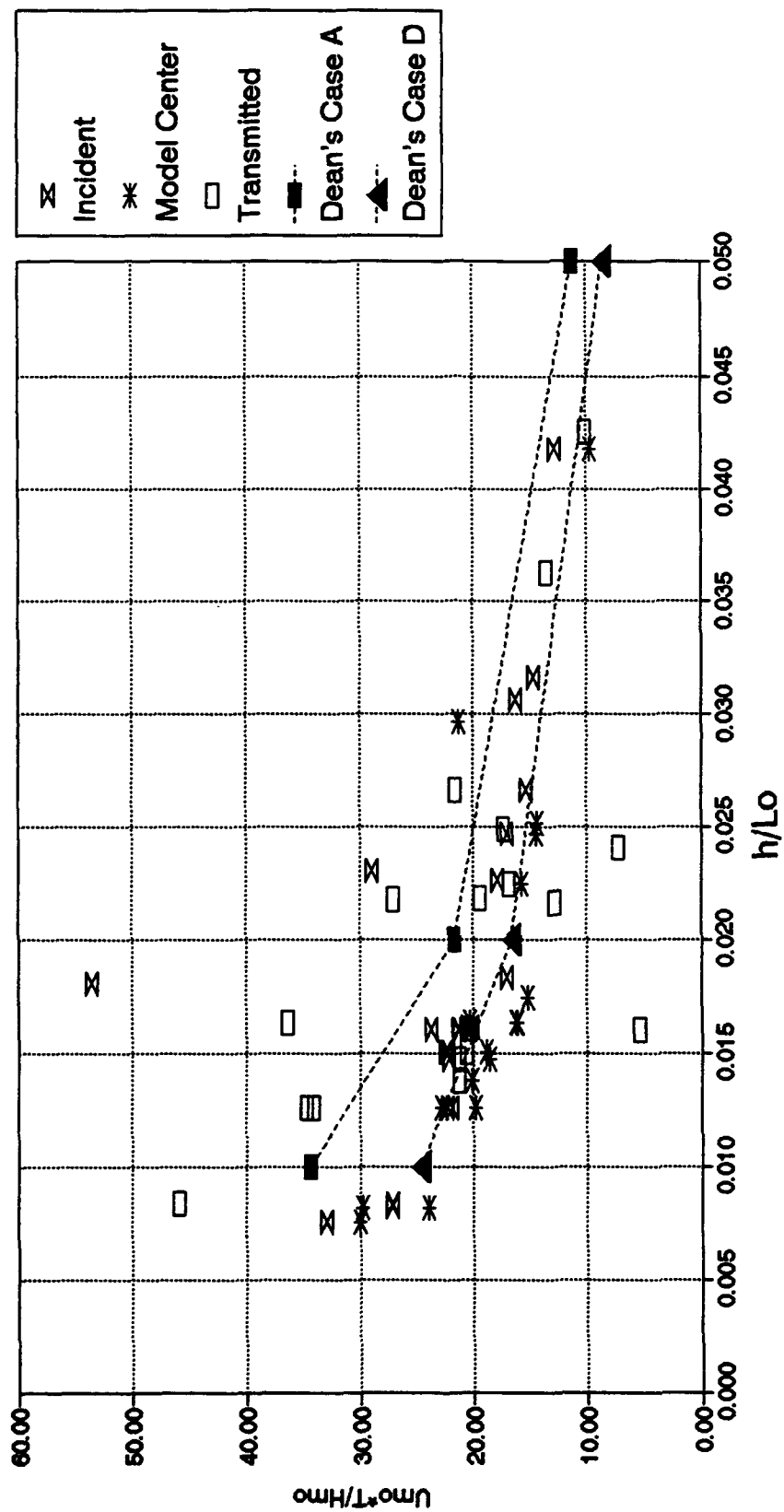
Figure 4.7 Dimensionless horizontal velocity versus dimensionless depth for existing condition
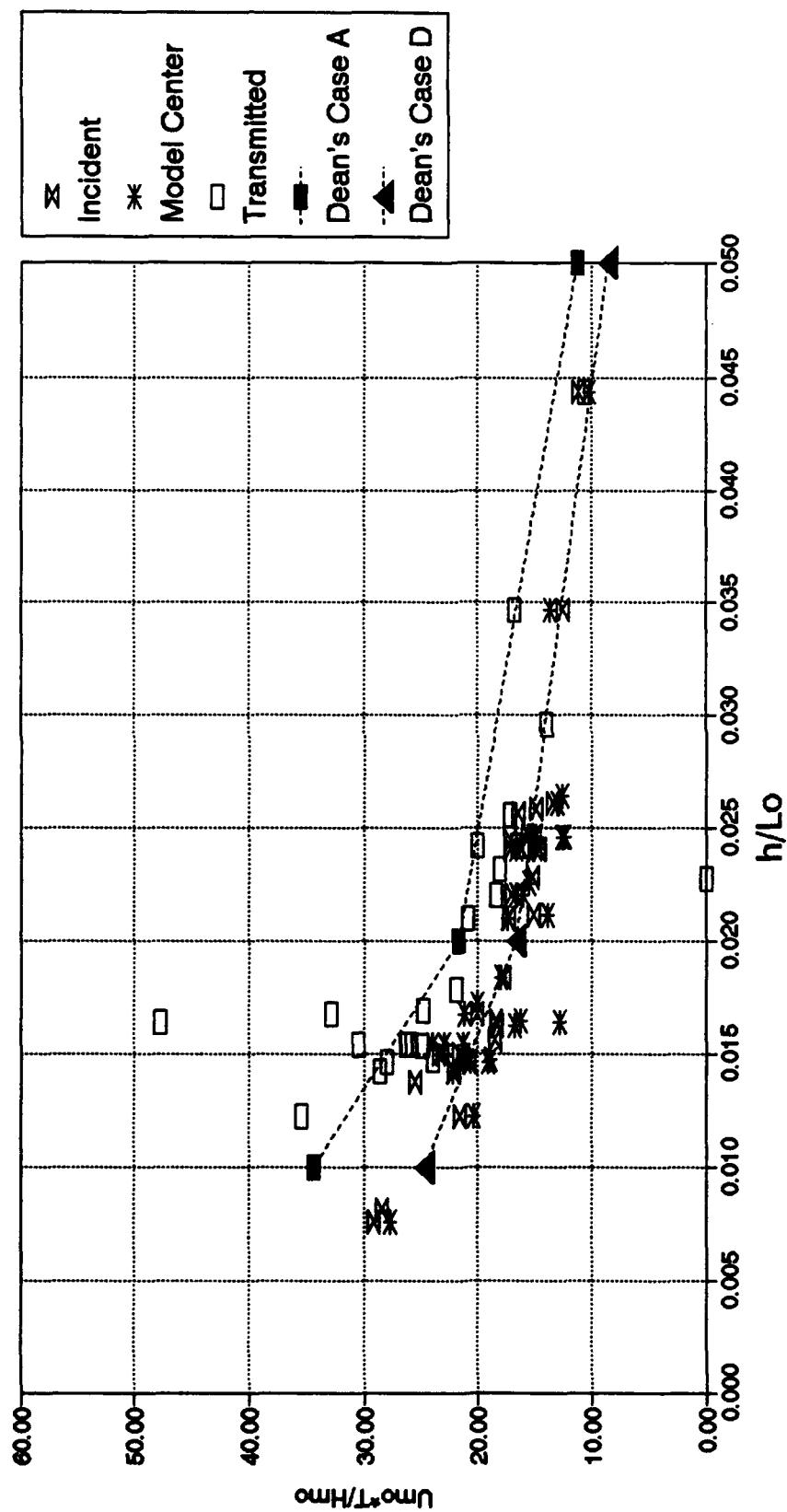
Figure 4.8 Dimensionless horizontal velocity versus dimensionless depth for proposed armoring

was washed down the wave channel during testing. Figure 4.9 provides post-test

sample rock distributions taken upon completion of the first phase of testing. Note

that the material from the leeward side of the structure is considerably heavier

than that from the seaward side, suggesting selective removal of the smaller armor

stone. The sample of material washed-out from the leeward side is somewhat less

coarse than the material on the seaward slope. It is likely that the fines from the

washed-out material are totally removed from the system through transport up the

beach and settlement through the gaps in the beach slabs.

After the model was re-configured and tested during the second phase of

the project, post-test rock samples were again taken from both sides of the model

and from the rock that was washed down the wave channel during testing. Figure

4.10 provides post-test sample rock distributions taken upon completion of the

second phase of testing. There is much less evidence of selective removal of fines

from the Class A armor stone than from the existing material. The leeward slope

material and the washed-out material are slightly more coarse than the armor

material on the seaward side.
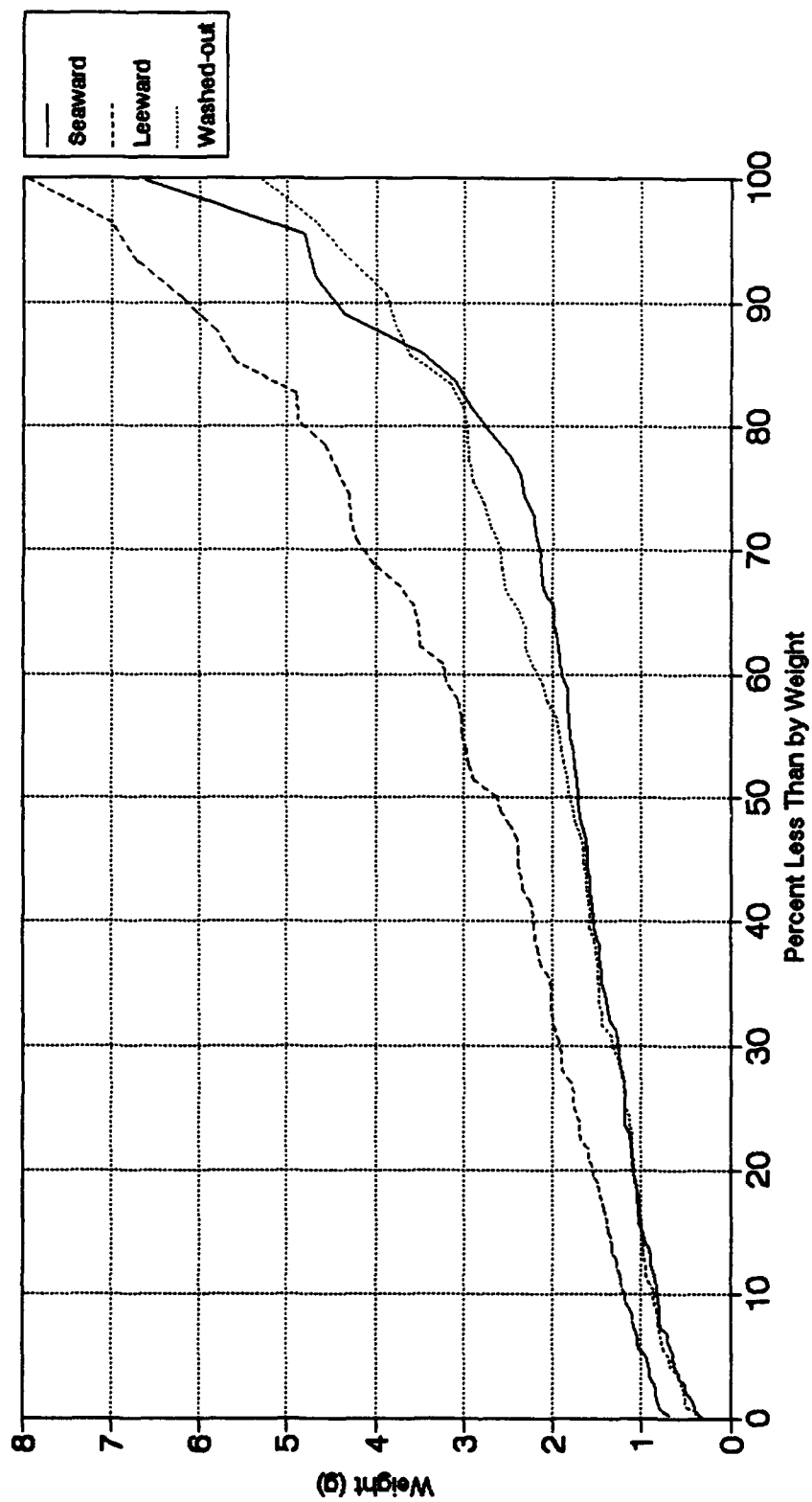
Figure 4.9 Existing condition post-test rock distributions
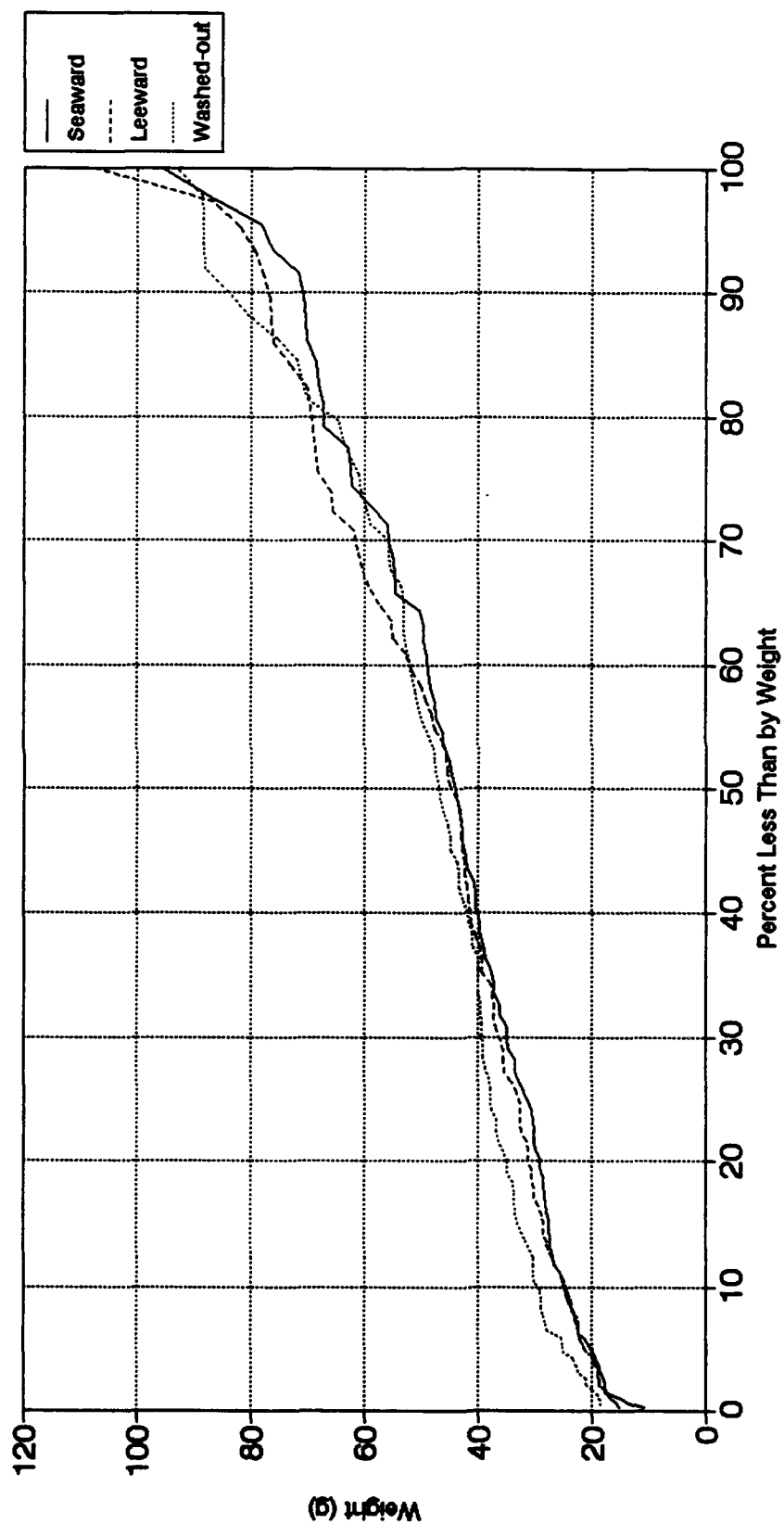
Figure 4.10 Proposed armoring post-test rock distributions

5.0 SUMMARY AND CONCLUSIONS

5.1 Test Summary

This report summarizes the results of 64 laboratory tests conducted to determine the stability of armor rock covering an existing sewer outfall for the city of Goleta, California. The tests were conducted at Oregon State University's O.H. Hinsdale Wave Research Laboratory in Corvallis Oregon. The testing consisted of two phases: phase one modeled the existing condition of the outfall and phase two modeled the outfall with proposed armor rock to provide additional stability. Model rock was obtained from local quarries to reproduce the size distributions of existing, and proposed armor rock. Wave tests were conducted in prototype water depths ranging from 15 to 45 feet at scale ratios ranging from 4.52 to 15.5. Prototype wave conditions included both random and monochromatic waves with periods ranging from 14 to 22 seconds and wave heights ranging from 4 to 25 feet. Wave data were taken utilizing seven resistive wave gages, two acoustic current meters and a sonic wave profiler. In addition, the test runs were video recorded from two underwater and one above water locations. Model test conditions for each wave test run were presented in tabular form. Prototype tabular summaries were provided. Non-dimensional graphical summaries were presented and discussed.

5.2 Results Summary

Wave conditions were analyzed by employing Fourier analysis to determine

sine and cosine amplitudes of each frequency component, which were interpreted

to separate the incident and reflected waves. A complete set of the results of

analysis is presented in the Appendix. Results are summarized in tabular form at

both model and prototype scale. Significant hydrodynamic properties were

presented graphically in non-dimensional form and compared to theoretical or

empirical models. Similar trends were observed in both monochromatic and

random wave tests. Breaking wave heights were found to be within 75% of the

theoretical maximum wave height, a result consistent with other experiments.

Reflection coefficients were found to decrease and transmission coefficients

increase with increases in relative water depth. Velocities, non-dimensionalized

with respect to wave height and period, were found to decrease with increasing

wave steepness and increasing relative depth. Similar hydrodynamic trends were

noted in the existing and proposed armor configurations. Selective removal of

fines from the rock armor occurred during the wave tests. The proposed armor

experience less removal of fines than the existing armor.

REFERENCES

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APPENDIX

RESULTS OF ANALYSIS

Left column

Test Identification .... : a131-01

Reflection Coefficients for Data file .... : a131-01.wrl

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
**** Incident wave energy ****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.33840E-02
Maximum smoothed value .... = 1.13431E+00
First moment .... = 5.08528E-03
Second moment .... = 9.05731E-04
Hmo .... = .731
Tp .... = 5.278

**** Reflected wave energy ****
Total smoothed energy .... = 1.09934E-03
Maximum smoothed value .... = 4.02563E-03
First moment .... = 1.54451E-04
Second moment .... = 2.40588E-05
Hmo .... = .133
Reflection coefficient .... = .181

*** Smoothed spectral densities for DL = 2.5 Ft. ***
**** Incident wave energy ****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.23459E-02
Maximum smoothed value .... = 1.09050E+00
First moment .... = 3.14062E-03
Second moment .... = 1.04864E-03
Hmo .... = .722
Tp .... = 5.278

**** Reflected wave energy ****
Total smoothed energy .... = 9.34395E-04
Maximum smoothed value .... = 2.92092E-02
First moment .... = 1.54409E-04
Second moment .... = 8.83118E-05
Hmo .... = .122
Reflection coefficient .... = .169

*** Smoothed spectral densities for DL = 9.5 Ft. ***
**** Incident wave energy ****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.07388E-02
Maximum smoothed value .... = 1.18020E-02
First moment .... = 4.47189E-03
Second moment .... = 6.53528E-04
Hmo .... = .701
Tp .... = 5.278

**** Reflected wave energy ****
Total smoothed energy .... = 1.24972E-03
Maximum smoothed value .... = 4.19938E-02
First moment .... = 1.83988E-04
Second moment .... = 2.73600E-05
Hmo .... = .141
Reflection coefficient .... = .202

Middle column

Test Identification .... : a131-01

Reflection Coefficients for Data file .... : a131-01.wrl

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
**** Incident wave energy ****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.90147E-02
Maximum smoothed value .... = 5.86397E-01
First moment .... = 6.64179E-03
Second moment .... = 1.78701E-03
Hmo .... = .681
Tp .... = 2.560

**** Reflected wave energy ****
Total smoothed energy .... = 1.51887E-03
Maximum smoothed value .... = 5.45725E-02
First moment .... = 2.17359E-04
Second moment .... = 3.50140E-05
Hmo .... = .156
Reflection coefficient .... = .229

*** Smoothed spectral densities for DL = 3.0 Ft. ***
**** Incident wave energy ****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.20865E-02
Maximum smoothed value .... = 6.02272E-01
First moment .... = 6.35681E-03
Second moment .... = 1.91492E-03
Hmo .... = .716
Tp .... = 2.560

**** Reflected wave energy ****
Total smoothed energy .... = 1.02805E-03
Maximum smoothed value .... = 3.01253E-02
First moment .... = 1.53683E-04
Second moment .... = 6.50007E-05
Hmo .... = .128
Reflection coefficient .... = .179

*** Smoothed spectral densities for DL = 10.0 Ft. ***
**** Incident wave energy ****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.48362E-02
Maximum smoothed value .... = 5.71743E-01
First moment .... = 2.18987E-03
Second moment .... = 3.25352E-04
Hmo .... = .487
Tp .... = 5.278

**** Reflected wave energy ****
Total smoothed energy .... = 1.61344E-03
Maximum smoothed value .... = 6.18250E-02
First moment .... = 2.39065E-04
Second moment .... = 3.58020E-05
Hmo .... = .161
Reflection coefficient .... = .330

Right column

Test Identification .... : a131-01

Run Identification .... : a131-01

Raw Data File .... : a131-01.wrl
Date of test .... : 11-FEB-1992   10:10:30

***** Wave Gauge 4 Summary *****
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 4.34153E-02
Maximum smoothed value .... = 9.63397E-01
First moment .... = 1.33445E-02
Second moment .... = 5.39852E-03
Hmo .... = .833
Tp .... = 5.224

***** Current Meter Summary Seaward Gauge *****
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 4.58215E-01
Maximum smoothed value .... = 4.17719E-02
First moment .... = 1.66423E-03
Second moment .... = 8.66125E-04
Umo .... = .271
Tp .... = 5.224

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.54105E-01
Maximum smoothed value .... = 1.91933E+01
First moment .... = 1.63292E-01
Second moment .... = 5.24598E-02
Umo .... = 3.235
Tp .... = 5.224

***** Current Meter Summary Leeward Gauge *****
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.72814E-01
Maximum smoothed value .... = 4.03681E-02
First moment .... = 1.24791E-03
Second moment .... = 6.09362E-04
Umo .... = .244
Tp .... = 5.333

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.46260E-01
Maximum smoothed value .... = 7.64894E+00
First moment .... = 1.19713E-01
Second moment .... = 4.59888E-02
Umo .... = 2.466
Tp .... = 5.278

Test Identification .... : t131-02

Run Identification .... : t131-02

Raw Data File .... : t131-02.wrl
Date of test .... : 11-FEB-1992   10:29:41

***** Wave Gauge 4 Summary *****
*** Total Wave Energy ***
Number of points in boxcar smooth ..... = 13
Total smoothed energy .... = 1.00839E-01
Maximum smoothed value .... = 1.32677E+00
First moment .... = 4.05798E-02
Second moment .... = 2.16508E-02
Hmo .... = 1.270
Tp .... = 5.124

***** Current Meter Summary Seaward Gauge *****
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth ..... = 13
Total smoothed energy .... = 9.63847E-01
Maximum smoothed value .... = 1.96033E+01
First moment .... = 3.22635E-01
Second moment .... = 1.41155E-01
Umo .... = 3.927
Tp .... = 5.124

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth ..... = 13
Total smoothed energy .... = 1.19433E-02
Maximum smoothed value .... = 1.29821E-01
First moment .... = 4.71187E-03
Second moment .... = 2.57452E-03
Umo .... = .437
Tp .... = 1.147

***** Current Meter Summary Leeward Gauge 10 *****
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth ..... = 13
Total smoothed energy .... = 7.60246E-01
Maximum smoothed value .... = 1.04777E+01
First moment .... = 2.91475E-01
Second moment .... = 1.39626E-01
Umo .... = 3.488
Tp .... = 2.560

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth ..... = 13
Total smoothed energy .... = 1.06078E-02
Maximum smoothed value .... = 1.53496E-01
First moment .... = 4.21788E-03
Second moment .... = 2.21552E-03
Umo .... = .412
Tp .... = 2.573

Test Identification .... : t131-02

Reflection Coefficients for Data file .... : t131-02.wrl

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 5   6   7
Distance between channels in feet .... = 7.00   3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ..... = 13
Total smoothed energy .... = 5.76544E-02
Maximum smoothed value .... = 1.73057E+00
First moment .... = 1.59745E-02
Second moment .... = 4.80086E-03
Hmo .... = .960
Tp .... = 2.547

*** Reflected wave energy ***
Total smoothed energy .... = 2.45952E-03
Maximum smoothed value .... = 7.62199E-02
First moment .... = 4.12355E-04
Second moment .... = 8.39848E-05
Hmo .... = .198
Reflection coefficient .... = .207

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ..... = 13
Total smoothed energy .... = 7.44218E-02
Maximum smoothed value .... = 1.83743E+00
First moment .... = 1.98433E-02
Second moment .... = 6.93408E-03
Hmo .... = 1.091
Tp .... = 2.586

*** Reflected wave energy ***
Total smoothed energy .... = 2.10723E-03
Maximum smoothed value .... = 4.24156E-02
First moment .... = 8.60755E-04
Second moment .... = 4.69462E-04
Hmo .... = .184
Reflection coefficient .... = .168

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ..... = 13
Total smoothed energy .... = 1.55292E-02
Maximum smoothed value .... = 5.95602E-01
First moment .... = 2.30364E-03
Second moment .... = 3.45509E-04
Hmo .... = .498
Tp .... = 5.278

*** Reflected wave energy ***
Total smoothed energy .... = 2.12291E-03
Maximum smoothed value .... = 8.05937E-02
First moment .... = 3.15441E-04
Second moment .... = 4.75804E-05
Hmo .... = .184
Reflection coefficient .... = .370

Test Identification .... : t131-02

Reflection Coefficients for Data file .... : t131-02.wrl

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 1   2   3
Distance between channels in feet .... = 7.00   2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ..... = 13
Total smoothed energy .... = 5.94891E-02
Maximum smoothed value .... = 1.90051E+00
First moment .... = 9.69308E-03
Second moment .... = 1.89034E-03
Hmo .... = .976
Tp .... = 5.278

*** Reflected wave energy ***
Total smoothed energy .... = 2.51541E-03
Maximum smoothed value .... = 6.56909E-02
First moment .... = 4.77037E-04
Second moment .... = 1.10841E-04
Hmo .... = .201
Reflection coefficient .... = .206

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ..... = 13
Total smoothed energy .... = 6.52024E-02
Maximum smoothed value .... = 1.60350E+00
First moment .... = 1.99898E-02
Second moment .... = 7.75757E-03
Hmo .... = 1.045
Tp .... = 5.278

*** Reflected wave energy ***
Total smoothed energy .... = 3.02129E-03
Maximum smoothed value .... = 2.80527E-01
First moment .... = 1.44478E-03
Second moment .... = 1.00761E-03
Hmo .... = .220
Reflection coefficient .... = .211

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ..... = 13
Total smoothed energy .... = 3.02990E-02
Maximum smoothed value .... = 1.94418E+00
First moment .... = 7.31498E-03
Second moment .... = 1.06877E-03
Hmo .... = .897
Tp .... = 5.278

*** Reflected wave energy ***
Total smoothed energy .... = 2.29993E-03
Maximum smoothed value .... = 6.63268E-02
First moment .... = 3.37695E-04
Second moment .... = 5.08193E-05
Hmo .... = .173
Reflection coefficient .... = .214

**** Wave Gauge 4 Summary ****
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.01609E-01
Maximum smoothed value .... = 1.34369E+00
First moment .... = 4.10243E-02
Second moment .... = 2.19565E-02
Hmo .... = 1.275
Tp .... = 5.224

**** Current Meter Summary Seaward Gauge ****
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.64265E-01
Maximum smoothed value .... = 1.96419E+01
First moment .... = 3.22691E-01
Second moment .... = 1.41263E-01
Umo .... = 3.928
Tp .... = 5.224

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.17490E-02
Maximum smoothed value .... = 1.27944E-01
First moment .... = 4.49702E-03
Second moment .... = 2.42527E-03
Umo .... = .434
Tp .... = 1.741

**** Current Meter Summary Leeward Gauge ****
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.60795E-01
Maximum smoothed value .... = 1.03342E+01
First moment .... = 2.93981E-01
Second moment .... = 1.36157E-01
Umo .... = 3.488
Tp .... = 2.560

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.51010E-03
Maximum smoothed value .... = 1.22992E-01
First moment .... = 3.83460E-03
Second moment .... = 2.06610E-03
Umo .... = .390
Tp .... = 2.599

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 5   6   7
Distance between channels in feet .... = 7.00   3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.35866E-02
Maximum smoothed value .... = 1.56292E+00
First moment .... = 1.46318E-02
Second moment .... = 4.36539E-03
Hmo .... = .926
Tp .... = 2.560

*** Reflected wave energy ***
Total smoothed energy .... = 2.82841E-03
Maximum smoothed value .... = 8.14205E-02
First moment .... = 5.06610E-04
Second moment .... = 1.11096E-04
Hmo .... = .213
Reflection coefficient .... = .230

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.10897E-02
Maximum smoothed value .... = 1.66690E+00
First moment .... = 1.97976E-02
Second moment .... = 7.42083E-03
Hmo .... = 1.067
Tp .... = 2.547

*** Reflected wave energy ***
Total smoothed energy .... = 2.28769E-03
Maximum smoothed value .... = 4.12903E-02
First moment .... = 8.95259E-04
Second moment .... = 4.73960E-04
Hmo .... = .191
Reflection coefficient .... = .179

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.56754E-02
Maximum smoothed value .... = 6.01812E-01
First moment .... = 2.32251E-03
Second moment .... = 3.47574E-04
Hmo .... = .501
Tp .... = 5.224

*** Reflected wave energy ***
Total smoothed energy .... = 2.23896E-03
Maximum smoothed value .... = 8.54384E-02
First moment .... = 3.32880E-04
Second moment .... = 5.02142E-05
Hmo .... = .189
Reflection coefficient .... = .378

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 1   2   3
Distance between channels in feet .... = 7.00   2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.69953E-02
Maximum smoothed value .... = 1.91065E+00
First moment .... = 9.49172E-03
Second moment .... = 1.85577E-03
Hmo .... = .972
Tp .... = 5.278

*** Reflected wave energy ***
Total smoothed energy .... = 2.81614E-03
Maximum smoothed value .... = 7.97245E-02
First moment .... = 5.46393E-04
Second moment .... = 1.30923E-04
Hmo .... = .212
Reflection coefficient .... = .218

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.73063E-02
Maximum smoothed value .... = 1.49339E+00
First moment .... = 1.53346E-02
Second moment .... = 7.53618E-03
Hmo .... = 1.038
Tp .... = 5.278

*** Reflected wave energy ***
Total smoothed energy .... = 3.21234E-03
Maximum smoothed value .... = 2.69204E-01
First moment .... = 1.44403E-03
Second moment .... = 1.00698E-03
Hmo .... = .227
Reflection coefficient .... = .218

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.00473E-02
Maximum smoothed value .... = 1.94662E+00
First moment .... = 7.32125E-03
Second moment .... = 1.06938E-03
Hmo .... = .693
Tp .... = 5.278

*** Reflected wave energy ***
Total smoothed energy .... = 2.44743E-03
Maximum smoothed value .... = 9.20668E-02
First moment .... = 3.59558E-04
Second moment .... = 5.41531E-05
Hmo .... = .196
Reflection coefficient .... = .220

Test Identification : a131-04
Reflection Coefficients for Data file : a131-04.wrl

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.39993E-02
Maximum smoothed value .... = 2.00273E+00
First moment .... = 1.06274E-02
Second moment .... = 2.13985E-03
Hmo .... = 1.012
Tp .... = 5.278

*** Reflected wave energy ***
Total smoothed energy .... = 3.70317E-03
Maximum smoothed value .... = 8.27004E-02
First moment .... = 7.73866E-04
Second moment .... = 1.95298E-04
Hmo .... = .243
Reflection coefficient .... = .241

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.43589E-02
Maximum smoothed value .... = 1.51948E+00
First moment .... = 1.90189E-02
Second moment .... = 9.46411E-03
Hmo .... = 1.091
Tp .... = 5.224

*** Reflected wave energy ***
Total smoothed energy .... = 4.04370E-03
Maximum smoothed value .... = 3.57518E-01
First moment .... = 2.01606E-03
Second moment .... = 1.39791E-03
Hmo .... = .254
Reflection coefficient .... = .233

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.25179E-02
Maximum smoothed value .... = 2.02872E+00
First moment .... = 7.63735E-03
Second moment .... = 1.11636E-03
Hmo .... = .917
Tp .... = 5.278

*** Reflected wave energy ***
Total smoothed energy .... = 2.03523E-03
Maximum smoothed value .... = 1.06534E-01
First moment .... = 4.17599E-04
Second moment .... = 6.32408E-05
Hmo .... = .213
Reflection coefficient .... = .232

Test Identification : a131-04
Reflection Coefficients for Data file : a131-04.wrl

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 4.07003E-02
Maximum smoothed value .... = 1.08934E+00
First moment .... = 1.06262E-02
Second moment .... = 3.09600E-03
Hmo .... = .807
Tp .... = 2.626

*** Reflected wave energy ***
Total smoothed energy .... = 5.09924E-03
Maximum smoothed value .... = 1.22330E-01
First moment .... = 1.27127E-03
Second moment .... = 3.61192E-04
Hmo .... = .286
Reflection coefficient .... = .354

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.63405E-02
Maximum smoothed value .... = 5.96947E-01
First moment .... = 9.63374E-03
Second moment .... = 3.73480E-03
Hmo .... = .763
Tp .... = 2.626

*** Reflected wave energy ***
Total smoothed energy .... = 1.41608E-03
Maximum smoothed value .... = 2.48409E-02
First moment .... = 3.48395E-04
Second moment .... = 1.59016E-04
Hmo .... = .151
Reflection coefficient .... = .197

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.39420E-02
Maximum smoothed value .... = 3.36812E-01
First moment .... = 2.06023E-03
Second moment .... = 3.06842E-04
Hmo .... = .472
Tp .... = 5.278

*** Reflected wave energy ***
Total smoothed energy .... = 2.09596E-03
Maximum smoothed value .... = 7.76590E-02
First moment .... = 3.21072E-04
Second moment .... = 5.11711E-05
Hmo .... = .183
Reflection coefficient .... = .388

Test Identification : a131-04
Run Identification : a131-04

Raw Data File .... : a131-04.wrl
Date of test .... : 11-FEB-1992 11:38:56

**** Wave Gauge 4 Summary ****
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.25622E-01
Maximum smoothed value .... = 1.62093E+00
First moment .... = 5.42788E-02
Second moment .... = 3.04463E-02
Hmo .... = 1.418
Tp .... = 1.759

**** Current Meter Summary Seaward Gauge ****
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.69746E-01
Maximum smoothed value .... = 1.87216E+01
First moment .... = 3.27595E-01
Second moment .... = 1.43957E-01
Umo .... = 3.939
Tp .... = 5.278

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.11351E-02
Maximum smoothed value .... = 1.22362E-01
First moment .... = 4.34653E-03
Second moment .... = 2.42205E-03
Umo .... = .422
Tp .... = 1.747

**** Current Meter Summary Leeward Gauge ****
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 8.95007E-01
Maximum smoothed value .... = 1.23178E+01
First moment .... = 3.67494E-01
Second moment .... = 1.78446E-01
Umo .... = 3.784
Tp .... = 2.639

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.07693E-02
Maximum smoothed value .... = 1.77763E-01
First moment .... = 7.22500E-03
Second moment .... = 3.76363E-03
Umo .... = .576
Tp .... = 1.772

Test Identification .... : a131-05

Reflection Coefficients for Data file .... : a131-05.wrl

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.37709E-02
Maximum smoothed value .... = 2.00026E+00
First moment .... = 1.05017E-02
Second moment .... = 2.11816E-03
Hmo .... = 1.010
Tp .... = 5.278
*** Reflected wave energy ***
Total smoothed energy .... = 3.66597E-03
Maximum smoothed value .... = 8.90901E-02
First moment .... = 7.30708E-04
Second moment .... = 1.86381E-04
Hmo .... = .242
Reflection coefficient .... = .240
*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.47718E-02
Maximum smoothed value .... = 1.51511E+00
First moment .... = 1.91000E-02
Second moment .... = 9.46508E-03
Hmo .... = 1.094
Tp .... = 5.278
*** Reflected wave energy ***
Total smoothed energy .... = 4.81964E-03
Maximum smoothed value .... = 3.62565E-01
First moment .... = 1.59495E-03
Second moment .... = 1.34903E-03
Hmo .... = .254
Reflection coefficient .... = .232
*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.28322E-02
Maximum smoothed value .... = 2.62301E+00
First moment .... = 1.11315E-03
Second moment .... = .915
Hmo .... = .915
Tp .... = 5.278
*** Reflected wave energy ***
Total smoothed energy .... = 2.90044E-03
Maximum smoothed value .... = 1.09006E-01
First moment .... = 4.28003E-04
Second moment .... = 6.49795E-05
Hmo .... = .215
Reflection coefficient .... = .233

Test Identification .... : a131-05

Reflection Coefficients for Data file .... : a131-05.wrl

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 4.23709E-02
Maximum smoothed value .... = 1.14731E+00
First moment .... = 1.11362E-02
Second moment .... = 3.25776E-03
Hmo .... = .823
Tp .... = 2.586
*** Reflected wave energy ***
Total smoothed energy .... = 5.35819E-03
Maximum smoothed value .... = 1.26667E-01
First moment .... = 1.33801E-03
Second moment .... = 3.00809E-04
Hmo .... = .293
Reflection coefficient .... = .356
*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.75892E-02
Maximum smoothed value .... = 6.16795E-01
First moment .... = 9.95332E-03
Second moment .... = 3.83178E-03
Hmo .... = .776
Tp .... = 2.586
*** Reflected wave energy ***
Total smoothed energy .... = 1.43598E-03
Maximum smoothed value .... = 2.55359E-02
First moment .... = 3.53833E-04
Second moment .... = 1.61483E-04
Hmo .... = .152
Reflection coefficient .... = .195
*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.41219E-02
Maximum smoothed value .... = 5.44188E-01
First moment .... = 2.06601E-03
Second moment .... = 3.10590E-04
Hmo .... = .475
Tp .... = 5.278
*** Reflected wave energy ***
Total smoothed energy .... = 2.18428E-03
Midplan smoothed value .... = 8.14470E-02
First moment .... = 3.33078E-04
Second moment .... = 5.27181E-05
Hmo .... = .187
Reflection coefficient .... = .393

Test Identification .... : a131-05

Run Identification .... : a131-05

Raw Data File .... : a131-05.wrl
Date of test .... : 11-FEB-1992   11:56:29

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.28788E-01
Maximum smoothed value .... = 1.69400E+00
First moment .... = 5.58950E-02
Second moment .... = 3.13902E-02
Hmo .... = 1.435
Tp .... = 1.753

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.63566E-01
Maximum smoothed value .... = 1.86216E+01
First moment .... = 3.26345E-01
Second moment .... = 1.49850E-01
Hmo .... = 3.926
Tp .... = 5.278
*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.70930E-03
Maximum smoothed value .... = 1.15287E-01
First moment .... = 4.02841E-03
Second moment .... = 2.31641E-03
Hmo .... = .394
Tp .... = 1.772

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.22397E-01
Maximum smoothed value .... = 1.26990E+01
First moment .... = 3.02136E-01
Second moment .... = 1.85838E-01
Hmo .... = 3.842
Tp .... = 2.586
*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.15196E-02
Maximum smoothed value .... = 2.09066E-01
First moment .... = 7.74631E-03
Second moment .... = 4.07366E-03
Hmo .... = .587
Tp .... = 2.560

==== Wave Gauge 4 Summary ====
=== Total Wave Energy ===
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 8.0034E-02
Maximum smoothed value .... = 1.28793E+00
First moment .... = 3.3595E-02
Second moment .... = 1.87257E-02
Hmo .... = 1.187
Tp .... = 5.953

==== Current Meter Summary Seaward Gauge ====
=== Horizontal Current Energy Channel 8 ===
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 9.70346E-01
Maximum smoothed value .... = 2.30727E+01
First moment .... = 2.86239E-01
Second moment .... = 1.22846E-01
Umo .... = 3.940
Tp .... = 5.953

=== Vertical Current Energy Channel 9 ===
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 8.9944E-03
Maximum smoothed value .... = 8.42124E-02
First moment .... = 3.62267E-03
Second moment .... = 2.11340E-03
Umo .... = .379
Tp .... = 6.169

==== Current Meter Summary Leeward Gauge ====
=== Horizontal Current Energy Channel 10 ===
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 7.41051E-01
Maximum smoothed value .... = 1.34769E+01
First moment .... = 2.26665E-01
Second moment .... = 9.80708E-02
Umo .... = 3.443
Tp .... = 5.953

=== Vertical Current Energy Channel 11 ===
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.28464E-02
Maximum smoothed value .... = 1.28615E-01
First moment .... = 4.24201E-03
Second moment .... = 2.32067E-03
Umo .... = .453
Tp .... = 6.095

Test Identification .... : s131-06

Reflection Coefficients for Data file ...... : s131-06.wrl

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet ...... = 7.00 3.00

=== Smoothed spectral densities for DL = 7.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 2.18094E-02
Maximum smoothed value .... = 4.97158E-01
First moment .... = 3.85783E-03
Second moment .... = 8.61412E-04
Hmo .... = .591
Tp .... = 5.953

=== Reflected wave energy ===
Total smoothed energy .... = 7.21107E-04
Maximum smoothed value .... = 1.98669E-02
First moment .... = 1.70778E-04
Second moment .... = 4.84053E-05
Hmo .... = .107
Reflection coefficient .... = .182

=== Smoothed spectral densities for DL = 3.0 Ft. ===
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 4.29210E-02
Maximum smoothed value .... = 5.28907E-01
First moment .... = 1.37290E-02
Second moment .... = 6.56870E-03
Hmo .... = .829
Tp .... = 2.008

=== Reflected wave energy ===
Total smoothed energy .... = 2.34078E-03
Maximum smoothed value .... = 6.66477E-02
First moment .... = 1.42263E-03
Second moment .... = 9.26868E-04
Hmo .... = .194
Reflection coefficient .... = .234

=== Smoothed spectral densities for DL = 10.0 Ft. ===
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 2.81026E-02
Maximum smoothed value .... = 5.58722E-01
First moment .... = 5.79456E-03
Second moment .... = 1.38857E-03
Hmo .... = .671
Tp .... = 2.977

=== Reflected wave energy ===
Total smoothed energy .... = 1.94151E-03
Maximum smoothed value .... = 6.40855E-02
First moment .... = 5.10719E-04
Second moment .... = 1.41113E-04
Hmo .... = .176
Reflection coefficient .... = .263

Test Identification .... : s131-06

Reflection Coefficients for Data file ...... : s131-06.wrl

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet ...... = 7.00 2.50

=== Smoothed spectral densities for DL = 7.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 6.14991E-02
Maximum smoothed value .... = 1.99008E+00
First moment .... = 1.00468E-02
Second moment .... = 1.85608E-03
Hmo .... = 1.047
Tp .... = 5.953

=== Reflected wave energy ===
Total smoothed energy .... = 9.60679E-04
Maximum smoothed value .... = 2.46073E-02
First moment .... = 1.93229E-04
Second moment .... = 5.20733E-05
Hmo .... = .124
Reflection coefficient .... = .118

=== Smoothed spectral densities for DL = 2.5 Ft. ===
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 4.27210E-02
Maximum smoothed value .... = 5.51716E-01
First moment .... = 1.65403E-02
Second moment .... = 7.63793E-03
Hmo .... = .827
Tp .... = 3.00

=== Reflected wave energy ===
Total smoothed energy .... = 1.99351E-03
Maximum smoothed value .... = 4.47903E-02
First moment .... = 6.29407E-04
Second moment .... = 6.29407E-04
Hmo .... = .179
Reflection coefficient .... = .216

=== Smoothed spectral densities for DL = 9.5 Ft. ===
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 7.53788E-02
Maximum smoothed value .... = 2.00311E+00
First moment .... = 1.28105E-02
Second moment .... = 2.61887E-03
Hmo .... = 1.098
Tp .... = 5.953

=== Reflected wave energy ===
Total smoothed energy .... = 2.28042E-03
Maximum smoothed value .... = 5.17770E-02
First moment .... = 4.97881E-04
Second moment .... = 1.24662E-04
Hmo .... = .191
Reflection coefficient .... = .174

Test Identification .... : t131-07
Run Identification .... : t131-07

Raw Data File .... : t131-07.wt
Date of test .... : 11-FEB-1992 13:51:20

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.26794E-02
Maximum smoothed value .... = 1.30284E+00
First moment .... = 3.51275E-02
Second moment .... = 2.00485E-02
Hmo .... = 1.218
Tp .... = 5.953

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.87748E-01
Maximum smoothed value .... = 2.32017E+01
First moment .... = 2.9430+E-01
Second moment .... = 1.27061E-01
Hmo .... = 3.975
Tp .... = 5.953

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.00171E-03
Maximum smoothed value .... = 1.00065E-01
First moment .... = 3.91588E-03
Second moment .... = 2.32207E-03
Hmo .... = .380
Tp .... = 1.533

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.43715E-01
Maximum smoothed value .... = 1.45881E+01
First moment .... = 2.4404TE-01
Second moment .... = 1.0215E-01
Hmo .... = 3.450
Tp .... = 5.885

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.90941E-03
Maximum smoothed value .... = 9.91922E-02
First moment .... = 3.87288E-03
Second moment .... = 2.22816E-03
Hmo .... = .398
Tp .... = 5.953

Test Identification .... : t131-07

Reflection Coefficients for Data file .... : t131-07.wt

Water Depth (Feet) = 2.29
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.26774E-02
Maximum smoothed value .... = 4.44745E-01
First moment .... = 4.35092E-03
Second moment .... = 1.03198E-03
Hmo .... = .602
Tp .... = 5.953

*** Reflected wave energy ***
Total smoothed energy .... = 7.79517E-04
Maximum smoothed value .... = 3.10690E-02
First moment .... = 1.84942E-04
Second moment .... = 5.37968E-05
Hmo .... = .112
Reflection coefficient .... = .185

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.02817E-02
Maximum smoothed value .... = 7.77200E-01
First moment .... = 1.64290E-02
Second moment .... = 7.54401E-03
Hmo .... = .897
Tp .... = 2.024

*** Reflected wave energy ***
Total smoothed energy .... = 2.65060E-03
Maximum smoothed value .... = 6.94217E-02
First moment .... = 1.54638E-03
Second moment .... = 9.77820E-04
Hmo .... = .206
Tp .... = .230

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.85538E-02
Maximum smoothed value .... = 6.37779E-01
First moment .... = 6.16381E-03
Second moment .... = 1.52273E-03
Hmo .... = .676
Tp .... = 3.012

*** Reflected wave energy ***
Total smoothed energy .... = 1.98607E-03
Maximum smoothed value .... = 6.42090E-02
First moment .... = 5.14026E-04
Second moment .... = 1.40822E-04
Hmo .... = .178
Reflection coefficient .... = .264

Test Identification .... : t131-07

Reflection Coefficients for Data file .... : t131-07.wt

Water Depth (Feet) = 2.29
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.72978E-02
Maximum smoothed value .... = 1.94038E+00
First moment .... = 9.00858E-03
Second moment .... = 1.03698E-03
Hmo .... = 1.036
Tp .... = 5.953

*** Reflected wave energy ***
Total smoothed energy .... = 9.48265E-04
Maximum smoothed value .... = 2.09498E-02
First moment .... = 1.82248E-04
Second moment .... = 4.71359E-05
Hmo .... = .123
Reflection coefficient .... = .119

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.91244E-02
Maximum smoothed value .... = 5.53129E-01
First moment .... = 1.42927E-02
Second moment .... = 6.63174E-03
Hmo .... = .795
Tp .... = 3.030

*** Reflected wave energy ***
Total smoothed energy .... = 1.76917E-03
Maximum smoothed value .... = 3.55711E-02
First moment .... = 9.33519E-04
Second moment .... = 3.04991E-04
Hmo .... = .169
Reflection coefficient .... = .213

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.37496E-02
Maximum smoothed value .... = 1.90218E+00
First moment .... = 1.25627E-02
Second moment .... = 2.57160E-03
Hmo .... = 1.004
Tp .... = 5.953

*** Reflected wave energy ***
Total smoothed energy .... = 2.12791E-03
Maximum smoothed value .... = 4.71909E-02
First moment .... = 4.07778E-04
Second moment .... = 1.13631E-04
Hmo .... = .185
Reflection coefficient .... = .170

Test Identification .... : t131-08

Reflection Coefficients for Data file .... : t131-08.wrl

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ... = 13
Total smoothed energy .... = 1.1445E-01
Maximum smoothed value .... = 2.47155E+00
First moment .... = 3.3315E-02
Second moment .... = 1.11592E-02
Hmo .... = 1.353
Tp .... = 2.297

*** Reflected wave energy ***
Total smoothed energy .... = 1.0012E-02
Maximum smoothed value .... = 3.1721E-01
First moment .... = 3.5791E-03
Second moment .... = 1.3402E-03
Hmo .... = .402
Reflection coefficient .... = .297

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ... = 13
Total smoothed energy .... = 1.0490E-01
Maximum smoothed value .... = 1.5770E+00
First moment .... = 3.3546E-02
Second moment .... = 1.5397E-02
Hmo .... = 1.297
Tp .... = 4.531

*** Reflected wave energy ***
Total smoothed energy .... = 7.1470E-03
Maximum smoothed value .... = 1.9760E-01
First moment .... = 4.0951E-03
Second moment .... = 3.6231E-03
Hmo .... = .338
Reflection coefficient .... = .263

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ... = 13
Total smoothed energy .... = 5.2045E-02
Maximum smoothed value .... = 2.0220E+00
First moment .... = 9.0795E-03
Second moment .... = 1.7170E-03
Hmo .... = .913
Tp .... = 4.531

*** Reflected wave energy ***
Total smoothed energy .... = 1.4116E-03
Maximum smoothed value .... = 5.2010E-02
First moment .... = 2.5291E-04
Second moment .... = 4.5972E-05
Hmo .... = .150
Reflection coefficient .... = .165

Test Identification .... : t131-08

Reflection Coefficients for Data file .... : t131-08.wrl

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ... = 13
Total smoothed energy .... = 1.27419E-01
Maximum smoothed value .... = 4.02004E+00
First moment .... = 4.4619E-02
Second moment .... = 1.66093E-02
Hmo .... = 1.428
Tp .... = 2.207

*** Reflected wave energy ***
Total smoothed energy .... = 1.17983E-02
Maximum smoothed value .... = 3.8964E-01
First moment .... = 4.2371E-03
Second moment .... = 1.59793E-03
Hmo .... = .434
Reflection coefficient .... = .304

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ... = 13
Total smoothed energy .... = 1.07592E-01
Maximum smoothed value .... = 2.31811E+00
First moment .... = 3.28764E-02
Second moment .... = 1.24834E-02
Hmo .... = 1.312
Tp .... = 2.207

*** Reflected wave energy ***
Total smoothed energy .... = 4.36399E-03
Maximum smoothed value .... = 7.62501E-02
First moment .... = 1.24245E-03
Second moment .... = 5.30743E-04
Hmo .... = .264
Reflection coefficient .... = .201

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ... = 13
Total smoothed energy .... = 2.59036E-02
Maximum smoothed value .... = 1.00218E+00
First moment .... = 4.75872E-03
Second moment .... = 8.77568E-04
Hmo .... = .644
Tp .... = 4.531

*** Reflected wave energy ***
Total smoothed energy .... = 2.38069E-03
Maximum smoothed value .... = 9.16848E-02
First moment .... = 4.36749E-04
Second moment .... = 8.05518E-05
Hmo .... = .195
Reflection coefficient .... = .303

Test Identification .... : t131-08

Run Identification .... : t131-08

Raw Data File .... : t131-08.wrl
Date of test .... : 11-FEB-1992 14:16:25

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth ... = 13
Total smoothed energy .... = 7.57910E-02
Maximum smoothed value .... = 1.20741E+00
First moment .... = 2.90493E-02
Second moment .... = 1.45748E-02
Hmo .... = 1.101
Tp .... = 4.531

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth ... = 13
Total smoothed energy .... = 7.61982E-01
Maximum smoothed value .... = 1.36197E+01
First moment .... = 3.10405E-01
Second moment .... = 1.49448E-01
Umo .... = 3.492
Tp .... = 2.207

*** Vertical Current Energy ***
Number of points in boxcar smooth ... = 13
Total smoothed energy .... = 1.73115E-02
Maximum smoothed value .... = 2.64691E-01
First moment .... = 7.03037E-03
Second moment .... = 3.74872E-03
Umo .... = .526
Tp .... = 2.197

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth ... = 13
Total smoothed energy .... = 9.21588E-01
Maximum smoothed value .... = 1.85777E+01
First moment .... = 3.22664E-01
Second moment .... = 1.34987E-01
Umo .... = 3.848
Tp .... = 4.531

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth ... = 13
Total smoothed energy .... = 1.32762E-02
Maximum smoothed value .... = 1.39669E-01
First moment .... = 4.48613E-03
Second moment .... = 2.35337E-03
Umo .... = .461
Tp .... = 4.376

Test Identification : e131-09
Run Identification : e131-09

Raw Data File : e131-09.wrl
Date of test : 11-FEB-1992 14:37:32

**** Wave Gauge 4 Summary ****
*** Total Wave Energy ***
Number of points in boxcar smooth ...... - 13
Total smoothed energy .... - 1.27692E-01
Maximum smoothed value .... - 2.54034E+00
First moment .... - 5.47687E-02
Second moment .... - 2.94448E-02
Hmo .... - 1.429
Tp .... - 1.947

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth ...... - 13
Total smoothed energy .... - 1.02679E+00
Maximum smoothed value .... - 2.75987E+01
First moment .... - 3.48521E-01
Second moment .... - 1.42113E-01
Umo .... - 4.053
Tp .... - 3.850

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth ...... - 13
Total smoothed energy .... - 1.87343E-02
Maximum smoothed value .... - 1.58200E-01
First moment .... - 6.46917E-03
Second moment .... - 3.37977E-03
Umo .... - .547
Tp .... - 1.918

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth ...... - 13
Total smoothed energy .... - 6.53162E-01
Maximum smoothed value .... - 1.23251E+01
First moment .... - 2.70560E-01
Second moment .... - 1.31871E-01
Umo .... - 3.233
Tp .... - 1.939

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth ...... - 13
Total smoothed energy .... - 2.03421E-02
Maximum smoothed value .... - 2.01859E-01
First moment .... - 7.07540E-03
Second moment .... - 3.85750E-03
Umo .... - .571
Tp .... - 1.925

Test Identification .... : e131-09
Reflection Coefficients for Data file ...... : e131-09.wrl

Water Depth (Feet) .... - 2.29
Data Channels used to compute Coefficients ... - 5 6 7
Distance between channels in feet .... - 7.00 3.00

*** Smoothed spectral densities for DL - 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... - 13
Total smoothed energy .... - 4.12297E-02
Maximum smoothed value .... - 1.57904E+00
First moment .... - 8.17427E-03
Second moment .... - 1.62888E-03
Hmo .... - .812
Tp .... - 3.850

*** Reflected wave energy ***
Total smoothed energy .... - 3.18636E-04
Maximum smoothed value .... - 7.20227E-03
First moment .... - 6.72027E-05
Second moment .... - 1.69464E-05
Hmo .... - .071
Reflection coefficient .... - .088

*** Smoothed spectral densities for DL - 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... - 13
Total smoothed energy .... - 5.27329E-02
Maximum smoothed value .... - 1.59890E+00
First moment .... - 1.04264E-02
Second moment .... - 3.57834E-03
Hmo .... - .919
Tp .... - 3.850

*** Reflected wave energy ***
Total smoothed energy .... - 2.01291E-03
Maximum smoothed value .... - 4.45650E-02
First moment .... - 6.39866E-04
Second moment .... - 3.23442E-04
Hmo .... - .179
Reflection coefficient .... - .195

*** Smoothed spectral densities for DL - 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... - 13
Total smoothed energy .... - 4.81398E-02
Maximum smoothed value .... - 1.84793E+00
First moment .... - 1.03807E-02
Second moment .... - 2.24332E-03
Hmo .... - .878
Tp .... - 3.821

*** Reflected wave energy ***
Total smoothed energy .... - 2.46906E-04
Maximum smoothed value .... - 4.79533E-03
First moment .... - 5.00488E-05
Second moment .... - 1.14692E-05
Hmo .... - .063
Reflection coefficient .... - .072

Test Identification .... : e131-09
Reflection Coefficients for Data file ...... : e131-09.wrl

Water Depth (Feet) .... - 2.29
Data Channels used to compute Coefficients ... - 1 2 3
Distance between channels in feet .... - 7.00 2.50

*** Smoothed spectral densities for DL - 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... - 13
Total smoothed energy .... - 5.55278E-02
Maximum smoothed value .... - 2.14138E+00
First moment .... - 1.10402E-02
Second moment .... - 2.20992E-03
Hmo .... - .943
Tp .... - 3.821

*** Reflected wave energy ***
Total smoothed energy .... - 1.01247E-04
Maximum smoothed value .... - 4.37470E-03
First moment .... - 4.43770E-05
Second moment .... - 1.18031E-05
Hmo .... - .053
Reflection coefficient .... - .859

*** Smoothed spectral densities for DL - 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... - 13
Total smoothed energy .... - 1.22813E-01
Maximum smoothed value .... - 2.39067E+00
First moment .... - 3.59478E-02
Second moment .... - 1.41962E-02
Hmo .... - 1.402
Tp .... - 1.947

*** Reflected wave energy ***
Total smoothed energy .... - 3.51913E-03
Maximum smoothed value .... - 3.66205E-02
First moment .... - 1.24264E-03
Second moment .... - 6.46672E-04
Hmo .... - .237
Reflection coefficient .... - .169

*** Smoothed spectral densities for DL - 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... - 13
Total smoothed energy .... - 5.88297E-02
Maximum smoothed value .... - 2.27708E+00
First moment .... - 1.25693E-02
Second moment .... - 2.69076E-03
Hmo .... - .970
Tp .... - 3.821

*** Reflected wave energy ***
Total smoothed energy .... - 7.03591E-04
Maximum smoothed value .... - 2.98099E-02
First moment .... - 1.67600E-04
Second moment .... - 3.62049E-05
Hmo .... - .112
Reflection coefficient .... - .115

Test Identification .... : a131-10

Reflection Coefficients for Data file .... : a131-10.wrl

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 1   2   3
Distance between channels in feet .... = 7.00   2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.6351E-02
Maximum smoothed value .... = 2.06897E+00
First moment .... = 1.16965E-02
Second moment .... = 2.22492E-03
Hmo .... = 1.030
Tp .... = 5.278
=== Reflected wave energy ===
Total smoothed energy .... = 4.6767E-03
Maximum smoothed value .... = 9.34894E-02
First moment .... = 1.03238E-03
Second moment .... = 2.71642E-04
Hmo .... = .274
Reflection coefficient .... = .266   <———————

*** Smoothed spectral densities for DL = 2.5 Ft. ***
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.74212E-02
Maximum smoothed value .... = 1.53960E+00
First moment .... = 2.03945E-02
Second moment .... = 1.00605E-02
Hmo .... = 1.114
Tp .... = 5.224
=== Reflected wave energy ===
Total smoothed energy .... = 4.45448E-03
Maximum smoothed value .... = 3.70893E-01
First moment .... = 2.14968E-03
Second moment .... = 1.46442E-03
Hmo .... = .267
Reflection coefficient .... = .240   <———————

*** Smoothed spectral densities for DL = 9.5 Ft. ***
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.40812E-02
Maximum smoothed value .... = 2.09082E+00
First moment .... = 7.86472E-03
Second moment .... = 1.16909E-03
Hmo .... = .930
Tp .... = 5.278
=== Reflected wave energy ===
Total smoothed energy .... = 3.18323E-03
Maximum smoothed value .... = 1.19223E-01
First moment .... = 4.71407E-04
Second moment .... = 7.21366E-05
Hmo .... = .226
Reflection coefficient .... = .243   <———————

Test Identification .... : a131-10

Reflection Coefficients for Data file .... : a131-10.wrl

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 5   6   7
Distance between channels in feet .... = 7.00   3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.88162E-02
Maximum smoothed value .... = 6.18393E-01
First moment .... = 6.80633E-03
Second moment .... = 1.87105E-03
Hmo .... = .679
Tp .... = 2.573
=== Reflected wave energy ===
Total smoothed energy .... = 6.00701E-03
Maximum smoothed value .... = 1.52636E-01
First moment .... = 1.53924E-03
Second moment .... = 4.44396E-04
Hmo .... = .310
Reflection coefficient .... = .457   <———————

*** Smoothed spectral densities for DL = 3.0 Ft. ***
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.99409E-02
Maximum smoothed value .... = 3.92194E-01
First moment .... = 7.64255E-03
Second moment .... = 2.96819E-03
Hmo .... = .692
Tp .... = 5.278
=== Reflected wave energy ===
Total smoothed energy .... = 1.57139E-03
Maximum smoothed value .... = 2.84456E-02
First moment .... = 3.16745E-04
Second moment .... = 1.18635E-04
Hmo .... = .159
Reflection coefficient .... = .229   <———————

*** Smoothed spectral densities for DL = 10.0 Ft. ***
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.38795E-02
Maximum smoothed value .... = 5.34723E-01
First moment .... = 2.04771E-03
Second moment .... = 3.04173E-04
Hmo .... = .471
Tp .... = 5.278
=== Reflected wave energy ===
Total smoothed energy .... = 2.20402E-03
Maximum smoothed value .... = 8.25655E-02
First moment .... = 3.34550E-04
Second moment .... = 5.20092E-05
Hmo .... = .188
Reflection coefficient .... = .399   <———————

===== Wave Gauge 4 Summary =====
=== Total Wave Energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.39454E-01
Maximum smoothed value .... = 1.67745E+00
First moment .... = 6.01472E-02
Second moment .... = 3.41374E-02
Hmo .... = 1.494
Tp .... = 1.741

===== Current Meter Summary Seaward Gauge =====
=== Horizontal Current Energy Channel 8 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.61756E-01
Maximum smoothed value .... = 1.90465E+01
First moment .... = 3.18328E-01
Second moment .... = 1.37167E-01
Hmo .... = 3.923
Tp .... = 5.278
=== Vertical Current Energy Channel 9 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.00716E-02
Maximum smoothed value .... = 1.82153E-02
First moment .... = 3.64298E-03
Second moment .... = 2.07371E-03
Hmo .... = .401
Tp .... = 1.724

===== Current Meter Summary Leeward Gauge =====
=== Horizontal Current Energy Channel 10 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 8.57772E-01
Maximum smoothed value .... = 1.25549E+01
First moment .... = 3.46537E-01
Second moment .... = 1.65287E-01
Hmo .... = 3.705
Tp .... = 2.599
=== Vertical Current Energy Channel 11 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.66695E-02
Maximum smoothed value .... = 1.73027E-01
First moment .... = 6.02566E-03
Second moment .... = 3.39605E-03
Hmo .... = .520
Tp .... = 1.741

**** Wave Gauge 4 Summary ****
*** Total Wave Energy ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 5.3237E-02
Maximum smoothed value	= 5.4578E-01
First moment	= 1.6792E-02
Second moment	= 7.5564E-03
Hmo	= .923
Tp	= 5.689

**** Current Meter Summary Seaved Gauge ****
*** Horizontal Current Energy Channel 8 ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 6.6304E-01
Maximum smoothed value	= 7.11285E-02
First moment	= 1.90145E-01
Second moment	= 7.24118E-02
Umo	= 3.263
Tp	= 5.447

*** Vertical Current Energy Channel 9 ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 1.15706E-02
Maximum smoothed value	= 3.43172E-02
First moment	= 3.6270E-03
Second moment	= 1.85176E-03
Umo	= .430
Tp	= 73.143

**** Current Meter Summary Leeved Gauge ****
*** Horizontal Current Energy Channel 10 ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 5.64766E-01
Maximum smoothed value	= 5.85514E+00
First moment	= 1.5820E-01
Second moment	= 5.93201E-02
Umo	= 3.006
Tp	= 5.689

*** Vertical Current Energy Channel 11 ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 1.01261E-02
Maximum smoothed value	= 3.98557E-02
First moment	= 3.05723E-03
Second moment	= 1.57205E-03
Umo	= .403
Tp	= 5.689

Water Depth (Feet)	= 2.29
Data Channels used to compute Coefficients	= 5 6 7
Distance between channels in feet	= 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 3.81019E-02
Maximum smoothed value	= 2.66680E-01
First moment	= 9.69182E-03
Second moment	= 2.96332E-03
Hmo	= .781
Tp	= 5.689

*** Reflected wave energy ***

Total smoothed energy	= 2.6433E-03
Maximum smoothed value	= 2.44551E-02
First moment	= 6.85464E-04
Second moment	= 2.15296E-04
Hmo	= .206
Reflection coefficient	= .263

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 4.28223E-02
Maximum smoothed value	= 2.40953E-01
First moment	= 1.11944E-02
Second moment	= 4.28303E-03
Hmo	= .828
Tp	= 5.689

*** Reflected wave energy ***

Total smoothed energy	= 1.71218E-03
Maximum smoothed value	= 1.11789E-02
First moment	= 5.79175E-04
Second moment	= 3.01367E-04
Hmo	= .166
Reflection coefficient	= .200

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 2.56098E-02
Maximum smoothed value	= 3.45235E-01
First moment	= 4.96878E-03
Second moment	= 1.11020E-03
Hmo	= .640
Tp	= 2.876

*** Reflected wave energy ***

Total smoothed energy	= 2.85397E-03
Maximum smoothed value	= 1.21011E-01
First moment	= 6.44296E-04
Second moment	= 1.66543E-04
Hmo	= .214
Reflection coefficient	= .334

Water Depth (Feet)	= 2.29
Data Channels used to compute Coefficients	= 1 2 3
Distance between channels in feet	= 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 4.45891E-02
Maximum smoothed value	= 5.92247E-01
First moment	= 8.4644E-03
Second moment	= 2.03799E-03
Hmo	= .845
Tp	= 5.447

*** Reflected wave energy ***

Total smoothed energy	= 1.98054E-03
Maximum smoothed value	= 2.17948E-02
First moment	= 5.57088E-04
Second moment	= 1.57888E-04
Hmo	= .178
Reflection coefficient	= .211

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 3.74049E-02
Maximum smoothed value	= 5.08947E-01
First moment	= 9.10469E-03
Second moment	= 4.19681E-03
Hmo	= .774
Tp	= 5.447

*** Reflected wave energy ***

Total smoothed energy	= 1.90012E-03
Maximum smoothed value	= 2.37099E-02
First moment	= 8.96894E-04
Second moment	= 5.81520E-04
Hmo	= .174
Reflection coefficient	= .225

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 3.77028E-02
Maximum smoothed value	= 6.07714E-01
First moment	= 6.13183E-03
Second moment	= 1.11967E-03
Hmo	= .777
Tp	= 5.447

*** Reflected wave energy ***

Total smoothed energy	= 1.36948E-03
Maximum smoothed value	= 1.92595E-01
First moment	= 2.62357E-04
Second moment	= 5.96447E-05
Hmo	= .148
Reflection coefficient	= .191

Test Identification .... : a131-12

Run Identification .... : a131-12

Raw Data File .... : a131-12.wrl
Date of test .... : 11-FEB-1992 15:47:39

==== Wave Gauge 4 Summary ====
=== Total Wave Energy ===

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.82012E-02
Maximum smoothed value .... = 5.30878E-01
First moment .... = 1.90270E-02
Second moment .... = 8.71864E-03
Hmo .... = .965
Tp .... = 5.447

==== Current Meter Summary Seaward Gauge ====
=== Horizontal Current Energy   Channel 8 ===

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.03548E-01
Maximum smoothed value .... = 6.98805E+00
First moment .... = 1.96821E-01
Second moment .... = 7.49050E-02
Umo .... = 3.353
Tp .... = 5.447

=== Vertical Current Energy   Channel 9 ===

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.28922E-02
Maximum smoothed value .... = 4.20104E-02
First moment .... = 3.99255E-03
Second moment .... = 2.11289E-02
Umo .... = .454
Tp .... = 73.143

==== Current Meter Summary Leeward Gauge ====
=== Horizontal Current Energy   Channel 10 ===

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.92760E-01
Maximum smoothed value .... = 5.75424E+00
First moment .... = 1.69012E-01
Second moment .... = 6.54308E-02
Umo .... = 3.090
Tp .... = 5.818

=== Vertical Current Energy   Channel 11 ===

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.18244E-03
Maximum smoothed value .... = 3.84227E-02
First moment .... = 2.99335E-03
Second moment .... = 1.57856E-03
Umo .... = .383
Tp .... = 5.818

Test Identification .... : a131-12

Reflection Coefficients for Data file ...... : a131-12.wrl

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients .. =   5   6   7
Distance between channels in feet .... =   7.00 3.00

=== Smoothed spectral densities for DL = 7.0 Ft. ===
=== Incident wave energy ===

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.79826E-02
Maximum smoothed value .... = 2.52104E-01
First moment .... = 9.20361E-03
Second moment .... = 2.71377E-03
Hmo .... = .773
Tp .... = 5.447

=== Reflected wave energy ===

Total smoothed energy .... = 2.70234E-03
Maximum smoothed value .... = 2.18918E-02
First moment .... = 6.88999E-04
Second moment .... = 2.10959E-04
Hmo .... = .208
Reflection coefficient .... = .269   <========

=== Smoothed spectral densities for DL = 3.0 Ft. ===
=== Incident wave energy ===

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 4.54613E-02
Maximum smoothed value .... = 2.24825E-01
First moment .... = 1.23335E-02
Second moment .... = 4.91847E-03
Hmo .... = .853
Tp .... = 5.447

=== Reflected wave energy ===

Total smoothed energy .... = 2.05622E-03
Maximum smoothed value .... = 1.90191E-02
First moment .... = 8.04178E-04
Second moment .... = 4.47307E-04
Hmo .... = .181
Reflection coefficient .... = .213   <========

=== Smoothed spectral densities for DL = 10.0 Ft. ===
=== Incident wave energy ===

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.66654E-02
Maximum smoothed value .... = 4.02037E-01
First moment .... = 5.26054E-03
Second moment .... = 1.19588E-03
Hmo .... = .653
Tp .... = 2.844

=== Reflected wave energy ===

Total smoothed energy .... = 3.22850E-03
Maximum smoothed value .... = 1.80671E-01
First moment .... = 7.66476E-04
Second moment .... = 2.06391E-04
Hmo .... = .227
Reflection coefficient .... = .348   <========

Test Identification .... : a131-12

Reflection Coefficients for Data file ...... : a131-12.wrl

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients .. =   1   2   3
Distance between channels in feet .... =   7.00 2.50

=== Smoothed spectral densities for DL = 7.0 Ft. ===
=== Incident wave energy ===

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 4.65002E-02
Maximum smoothed value .... = 5.91035E-01
First moment .... = 9.14928E-03
Second moment .... = 2.31658E-03
Hmo .... = .863
Tp .... = 5.447

=== Reflected wave energy ===

Total smoothed energy .... = 2.60058E-03
Maximum smoothed value .... = 2.46909E-02
First moment .... = 7.34682E-04
Second moment .... = 2.41979E-04
Hmo .... = .205
Reflection coefficient .... = .238   <========

=== Smoothed spectral densities for DL = 2.5 Ft. ===
=== Incident wave energy ===

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.91644E-02
Maximum smoothed value .... = 4.95392E-01
First moment .... = 9.90667E-03
Second moment .... = 4.41005E-03
Hmo .... = .792
Tp .... = 5.447

=== Reflected wave energy ===

Total smoothed energy .... = 2.17709E-03
Maximum smoothed value .... = 1.34793E-02
First moment .... = 9.18229E-04
Second moment .... = 5.58892E-04
Hmo .... = .187
Reflection coefficient .... = .236   <========

=== Smoothed spectral densities for DL = 9.5 Ft. ===
=== Incident wave energy ===

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.84479E-02
Maximum smoothed value .... = 6.09201E-01
First moment .... = 6.39015E-03
Second moment .... = 1.20299E-03
Hmo .... = .784
Tp .... = 5.447

=== Reflected wave energy ===

Total smoothed energy .... = 2.22408E-03
Maximum smoothed value .... = 3.15896E-02
First moment .... = 4.72117E-04
Second moment .... = 1.17460E-04
Hmo .... = .189
Reflection coefficient .... = .241   <========

Column 1 (left)

Test Identification .... : a131-13

Reflection Coefficients for Data file .... : a131-13.wrt

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

***** Smoothed spectral densities for DL = 7.0 Ft. *****
***** Incident wave energy *****

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.49564E-02
Maximum smoothed value .... = 2.04476E+00
First moment .... = 1.07399E-02
Second moment .... = 2.14066E-03
Hmo .... = 1.019
Tp .... = 5.278

***** Reflected wave energy *****

Total smoothed energy .... = 3.68569E-03
Maximum smoothed value .... = 8.97422E-02
First moment .... = 7.37192E-04
Second moment .... = 1.79590E-04
Hmo .... = .243
Reflection coefficient .... = .238   <-------

***** Smoothed spectral densities for DL = 2.5 Ft. *****
***** Incident wave energy *****

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.57371E-02
Maximum smoothed value .... = 1.56564E+00
First moment .... = 1.83455E-02
Second moment .... = 8.93418E-03
Hmo .... = 1.101
Tp .... = 5.278

***** Reflected wave energy *****

Total smoothed energy .... = 3.76424E-03
Maximum smoothed value .... = 3.19222E-01
First moment .... = 1.74357E-03
Second moment .... = 1.20718E-03
Hmo .... = .245
Reflection coefficient .... = .223   <-------

***** Smoothed spectral densities for DL = 9.5 Ft. *****
***** Incident wave energy *****

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.34948E-02
Maximum smoothed value .... = 2.06740E+00
First moment .... = 7.77934E-03
Second moment .... = 1.13690E-03
Hmo .... = .925
Tp .... = 5.278

***** Reflected wave energy *****

Total smoothed energy .... = 2.99416E-03
Maximum smoothed value .... = 1.13445E-01
First moment .... = 4.39601E-04
Second moment .... = 6.60316E-05
Hmo .... = .219
Reflection coefficient .... = .237   <-------

Column 2 (middle)

Test Identification .... : a131-13

Reflection Coefficients for Data file .... : a131-13.wrt

Water Depth (Feet) .... = 2.29
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

***** Smoothed spectral densities for DL = 7.0 Ft. *****
***** Incident wave energy *****

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 4.55479E-02
Maximum smoothed value .... = 1.24909E+00
First moment .... = 1.20901E-02
Second moment .... = 3.53697E-03
Hmo .... = .854
Tp .... = 2.653

***** Reflected wave energy *****

Total smoothed energy .... = 5.45821E-03
Maximum smoothed value .... = 1.22631E-01
First moment .... = 1.32017E-03
Second moment .... = 3.68527E-04
Hmo .... = .296
Reflection coefficient .... = .346   <-------

***** Smoothed spectral densities for DL = 3.0 Ft. *****
***** Incident wave energy *****

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 4.21541E-02
Maximum smoothed value .... = 7.12508E-01
First moment .... = 1.15101E-02
Second moment .... = 4.52999E-03
Hmo .... = .821
Tp .... = 2.573

***** Reflected wave energy *****

Total smoothed energy .... = 1.53197E-03
Maximum smoothed value .... = 2.73004E-02
First moment .... = 4.11575E-04
Second moment .... = 2.03572E-04
Hmo .... = .157
Reflection coefficient .... = .191   <-------

***** Smoothed spectral densities for DL = 10.0 Ft. *****
***** Incident wave energy *****

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.48920E-02
Maximum smoothed value .... = 5.73567E-01
First moment .... = 2.19485E-03
Second moment .... = 3.27197E-04
Hmo .... = .488
Tp .... = 5.278

***** Reflected wave energy *****

Total smoothed energy .... = 2.40088E-03
Maximum smoothed value .... = 9.13845E-02
First moment .... = 3.59900E-04
Second moment .... = 5.51524E-05
Hmo .... = .196
Reflection coefficient .... = .402   <-------

Column 3 (right)

Test Identification .... : a131-13

Run identification .... : a131-13

Raw Data File .... : a131-13.wrt
Date of test .... : 12-FEB-1992 09:12:24

***** Wave Gauge 4 Summary *****
***** Total Wave Energy *****

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.30031E-01
Maximum smoothed value .... = 1.63417E+00
First moment .... = 5.50231E-02
Second moment .... = 3.02976E-02
Hmo .... = 1.442
Tp .... = 1.755

***** Current Meter Summary Seaward Gauge *****
***** Horizontal Current Energy Channel 8 *****

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.99711E-01
Maximum smoothed value .... = 1.87387E+01
First moment .... = 3.23722E-01
Second moment .... = 1.42196E-01
Hmo .... = 3.919
Tp .... = 5.224

***** Vertical Current Energy Channel 9 *****

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.33584E-01
Maximum smoothed value .... = 2.53166E+00
First moment .... = 9.19006E-03
Second moment .... = 2.12557E-03
Hmo .... = 1.462
Tp .... = 73.143

***** Current Meter Summary Leeward Gauge *****
***** Horizontal Current Energy Channel 10 *****

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.32269E-01
Maximum smoothed value .... = 1.35357E+01
First moment .... = 3.80801E-01
Second moment .... = 1.83364E-01
Hmo .... = 3.862
Tp .... = 2.547

***** Vertical Current Energy Channel 11 *****

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.29551E-02
Maximum smoothed value .... = 2.10549E-01
First moment .... = 8.17012E-03
Second moment .... = 4.24896E-03
Hmo .... = .601
Tp .... = 2.560

Panel 1

Test Identification .... : a131-14

Reflection Coefficients for Data file ...... : a131-14.wrl

Water Depth (Feet) .... - 2.29
Data Channels used to compute Coefficients ... - 1 2 3
Distance between channels in feet ..... - 7.00 2.50

*** Smoothed spectral densities for DL - 7.0 Ft ***
*** Incident wave energy ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 3.95063E-02
Maximum smoothed value .... - 5.07463E-01
First moment .... - 7.41317E-03
Second moment .... - 1.76767E-03
Hmo .... - .795
Tp .... - 5.505

*** Reflected wave energy ***
Total smoothed energy .... - 1.81409E-03
Maximum smoothed value .... - 2.63379E-02
First moment .... - 4.78390E-04
Second moment .... - 1.53445E-04
Hmo .... - .170
Reflection coefficient .... - .214

*** Smoothed spectral densities for DL - 2.5 Ft ***
*** Incident wave energy ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 3.65397E-02
Maximum smoothed value .... - 4.25591E-01
First moment .... - 9.61810E-03
Second moment .... - 4.30695E-03
Hmo .... - .765
Tp .... - 5.505

*** Reflected wave energy ***
Total smoothed energy .... - 2.12278E-03
Maximum smoothed value .... - 1.08560E-02
First moment .... - 1.01117E-03
Second moment .... - 6.51324E-04
Hmo .... - .185
Reflection coefficient .... - .241

*** Smoothed spectral densities for DL - 9.5 Ft ***
*** Incident wave energy ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 3.44281E-02
Maximum smoothed value .... - 5.18204E-01
First moment .... - 5.78129E-03
Second moment .... - 1.09620E-03
Hmo .... - .742
Tp .... - 5.505

*** Reflected wave energy ***
Total smoothed energy .... - 1.57814E-03
Maximum smoothed value .... - 3.22047E-02
First moment .... - 3.26340E-04
Second moment .... - 7.94031E-05
Hmo .... - .159
Reflection coefficient .... - .214

Panel 2

Test Identification .... : a131-14

Reflection Coefficients for Data file ...... : a131-14.wrl

Water Depth (Feet) .... - 2.29
Data Channels used to compute Coefficients ... - 5 6 7
Distance between channels in feet ..... - 7.00 3.00

*** Smoothed spectral densities for DL - 7.0 Ft ***
*** Incident wave energy ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 3.26544E-02
Maximum smoothed value .... - 2.13397E-01
First moment .... - 7.91052E-03
Second moment .... - 2.31370E-03
Hmo .... - .723
Tp .... - 5.505

*** Reflected wave energy ***
Total smoothed energy .... - 2.19485E-03
Maximum smoothed value .... - 2.03429E-02
First moment .... - 5.31738E-04
Second moment .... - 1.60662E-04
Hmo .... - .187
Reflection coefficient .... - .239

*** Smoothed spectral densities for DL - 3.0 Ft ***
*** Incident wave energy ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 3.65539E-02
Maximum smoothed value .... - 1.98000E-01
First moment .... - 9.32530E-03
Second moment .... - 3.69526E-03
Hmo .... - .765
Tp .... - 5.505

*** Reflected wave energy ***
Total smoothed energy .... - 1.57076E-03
Maximum smoothed value .... - 1.07039E-02
First moment .... - 3.11251E-04
Second moment .... - .159
Reflection coefficient .... - .207

*** Smoothed spectral densities for DL - 10.0 Ft ***
*** Incident wave energy ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 2.36130E-02
Maximum smoothed value .... - 2.83395E-01
First moment .... - 4.54314E-03
Second moment .... - 1.01233E-03
Hmo .... - .615
Tp .... - 2.844

*** Reflected wave energy ***
Total smoothed energy .... - 2.49106E-03
Maximum smoothed value .... - 1.04506E-01
First moment .... - 5.42445E-04
Second moment .... - 1.38999E-04
Hmo .... - .200
Reflection coefficient .... - .325

Panel 3

Test Identification .... : a131-14

Run Identification .... : a131-14

Raw Data File .... : a131-14.wrl
Date of test .... : 12-FEB-1992 09:37:22

***** Wave Gauge 4 Summary *****
*** Total Wave Energy ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 5.2474E-02
Maximum smoothed value .... - 4.44214E-01
First moment .... - 1.72148E-02
Second moment .... - 7.94499E-03
Hmo .... - .916
Tp .... - 5.505

***** Current Meter Summary Seaward Gauge *****
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 5.94902E-01
Maximum smoothed value .... - 5.53639E+00
First moment .... - 1.70000E-01
Second moment .... - 6.61788E-02
Umo .... - 3.085
Tp .... - 5.505

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 6.10595E-07
Maximum smoothed value .... - 1.73758E-07
First moment .... - 7.65811E-08
Second moment .... - 5.09912E-08
Umo .... - .003
Tp .... - .234

***** Current Meter Summary Leeward Gauge *****
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 5.17199E-01
Maximum smoothed value .... - 4.36931E+00
First moment .... - 1.46750E-01
Second moment .... - 5.64637E-02
Umo .... - 2.877
Tp .... - 5.885

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 1.05013E-02
Maximum smoothed value .... - 3.91814E-01
First moment .... - 3.1878E-03
Second moment .... - 1.63620E-03
Umo .... - .410
Tp .... - 73.143

Test Identification .... : a155-01

Run Identification .... : a155-01

Raw Data File .... : a155-01.wri
Date of test .... : 12-FEB-1992   10:56:26

Wave Gauge 4 Summary
Total Wave Energy

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.58203E-01
Maximum smoothed value .... = 2.75263E+00
First moment .... = 5.40605E-02
Second moment .... = 2.58284E-02
Hmo .... = 1.591
Tp .... = 4.741

Current Meter Summary Seaward Gauge
Horizontal Current Energy Channel 8

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.44401E+00
Maximum smoothed value .... = 2.13713E+01
First moment .... = 4.62054E-01
Second moment .... = 1.81397E-01
Hmo .... = 4.807
Tp .... = 4.613

Vertical Current Energy Channel 9

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.33558E-01
Maximum smoothed value .... = 2.52159E+00
First moment .... = 9.19203E-03
Second moment .... = 2.12555E-03
Hmo .... = 1.462
Tp .... = 73.143

Current Meter Summary Leeward Gauge
Horizontal Current Energy Channel 10

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.06433E+00
Maximum smoothed value .... = 1.85214E+01
First moment .... = 3.62345E-01
Second moment .... = 1.47416E-01
Hmo .... = 4.127
Tp .... = 4.613

Vertical Current Energy Channel 11

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.75413E-02
Maximum smoothed value .... = 1.55383E-01
First moment .... = 5.25988E-03
Second moment .... = 2.54616E-03
Hmo .... = .530
Tp .... = 4.571

Test Identification .... : a155-01

Reflection Coefficients for Data file .... : a155-01.wri

Water Depth (Feet) .... = 2.90
Data Channels used to compute Coefficients ... =   5   6   7
Distance between channels in feet .... =   7.00   3.00

Smoothed spectral densities for DL = 7.0 Ft.
Incident wave energy

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.33491E-02
Maximum smoothed value .... = 1.70669E+00
First moment .... = 1.94232E-02
Second moment .... = 5.90064E-03
Hmo .... = 1.085
Tp .... = 2.393

Reflected wave energy

Total smoothed energy .... = 5.24074E-03
Maximum smoothed value .... = 1.32914E-01
First moment .... = 1.46647E-03
Second moment .... = 4.65114E-04
Hmo .... = .290
Reflection coefficient .... = .267

Smoothed spectral densities for DL = 3.0 Ft.
Incident wave energy

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.70416E-02
Maximum smoothed value .... = 1.00477E+00
First moment .... = 1.89182E-02
Second moment .... = 8.96346E-03
Hmo .... = 1.036
Tp .... = 4.613

Reflected wave energy

Total smoothed energy .... = 5.58154E-03
Maximum smoothed value .... = 1.33160E-01
First moment .... = 2.88171E-03
Second moment .... = 1.78550E-03
Hmo .... = .299
Reflection coefficient .... = .289

Smoothed spectral densities for DL = 10.0 Ft.
Incident wave energy

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.32224E-02
Maximum smoothed value .... = 1.24183E+00
First moment .... = 5.26359E-03
Second moment .... = 8.54505E-04
Hmo .... = .729
Tp .... = 4.613

Reflected wave energy

Total smoothed energy .... = 2.44257E-03
Maximum smoothed value .... = 7.38403E-02
First moment .... = 3.75951E-04
Second moment .... = 6.67590E-05
Hmo .... = .198
Reflection coefficient .... = .271

Test Identification .... : a155-01

Reflection Coefficients for Data file .... : a155-01.wri

Water Depth (Feet) .... = 2.90
Data Channels used to compute Coefficients ... =   1   2   3
Distance between channels in feet .... =   7.00   2.50

Smoothed spectral densities for DL = 7.0 Ft.
Incident wave energy

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.57934E-01
Maximum smoothed value .... = 4.16643E+00
First moment .... = 3.24119E-02
Second moment .... = 1.14614E-03
Hmo .... = 1.590
Tp .... = 4.613

Reflected wave energy

Total smoothed energy .... = 5.78966E-03
Maximum smoothed value .... = 1.53401E-01
First moment .... = 1.63339E-03
Second moment .... = 5.11794E-04
Hmo .... = .304
Reflection coefficient .... = .191

Smoothed spectral densities for DL = 2.5 Ft.
Incident wave energy

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.53994E-01
Maximum smoothed value .... = 3.39043E+00
First moment .... = 2.96561E-02
Second moment .... = 1.33798E-02
Hmo .... = 1.475
Tp .... = 4.613

Reflected wave energy

Total smoothed energy .... = 4.97942E-03
Maximum smoothed value .... = 1.14509E-01
First moment .... = 2.24998E-03
Second moment .... = 1.35180E-03
Hmo .... = .282
Reflection coefficient .... = .191

Smoothed spectral densities for DL = 9.5 Ft.
Incident wave energy

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.06925E-01
Maximum smoothed value .... = 4.12238E+00
First moment .... = 1.67429E-02
Second moment .... = 2.65149E-03
Hmo .... = 1.307
Tp .... = 4.613

Reflected wave energy

Total smoothed energy .... = 2.70762E-03
Maximum smoothed value .... = 8.91104E-02
First moment .... = 4.21334E-04
Second moment .... = 7.30856E-05
Hmo .... = .208
Reflection coefficient .... = .159

Test Identification .... : t155-02

Reflection Coefficients for Data file .... : t155-02.wrt

Water Depth (Feet) .... = 2.90
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.84691E-02
Maximum smoothed value .... = 8.93448E-01
First moment .... = 1.39068E-02
Second moment .... = 3.63699E-03
Hmo .... = 1.047
Tp .... = 5.020

*** Reflected wave energy ***
Total smoothed energy .... = 2.37723E-03
Maximum smoothed value .... = 2.00057E-02
First moment .... = 7.33274E-04
Second moment .... = 2.56898E-04
Hmo .... = .195
Reflection coefficient .... = .186

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.41718E-02
Maximum smoothed value .... = 7.39143E-01
First moment .... = 1.22064E-02
Second moment .... = 5.07688E-03
Hmo .... = .931
Tp .... = 4.971

*** Reflected wave energy ***
Total smoothed energy .... = 2.52413E-03
Maximum smoothed value .... = 1.57075E-02
First moment .... = 7.39403E-04
Second moment .... =
Hmo .... = .201
Reflection coefficient .... = .216

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.84984E-02
Maximum smoothed value .... = 6.02411E-01
First moment .... = 1.05833E-02
Second moment .... = 2.20499E-03
Hmo .... = .987
Tp .... = 5.020

*** Reflected wave energy ***
Total smoothed energy .... = 2.01057E-03
Maximum smoothed value .... = 4.39822E-02
First moment .... = 5.06159E-04
Second moment .... = 1.04708E-04
Hmo .... = .179
Reflection coefficient .... = .185

Test Identification .... : t155-02

Reflection Coefficients for Data file .... : t155-02.wrt

Water Depth (Feet) .... = 2.90
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.89154E-02
Maximum smoothed value .... = 4.13335E-01
First moment .... = 1.44564E-02
Second moment .... = 4.33221E-03
Hmo .... = .971
Tp .... = 5.020

*** Reflected wave energy ***
Total smoothed energy .... = 2.49633E-03
Maximum smoothed value .... = 1.99040E-02
First moment .... = 7.24189E-04
Second moment .... = 2.46592E-04
Hmo .... = .200
Reflection coefficient .... = .206

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.99361E-02
Maximum smoothed value .... = 3.73407E-01
First moment .... = 1.41053E-02
Second moment .... = 5.27166E-03
Hmo .... = .979
Tp .... = 5.020

*** Reflected wave energy ***
Total smoothed energy .... = 2.22834E-03
Maximum smoothed value .... = 1.95120E-02
First moment .... = 9.93391E-04
Second moment .... = 5.69632E-04
Hmo .... = .189
Reflection coefficient .... = .193

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 4.49065E-02
Maximum smoothed value .... = 5.33719E-01
First moment .... = 9.24138E-03
Second moment .... = 2.21103E-03
Hmo .... = .848
Tp .... = 2.612

*** Reflected wave energy ***
Total smoothed energy .... = 2.00193E-03
Maximum smoothed value .... = 1.01553E-01
First moment .... = 7.03891E-04
Second moment .... = 2.01126E-04
Hmo .... = .212
Reflection coefficient .... = .230

Test Identification .... : t155-02

Run Identification .... : t155-02

Raw Data File .... : t155-02.wrt
Date of test .... : 12-FEB-1992 11:39:08

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.92166E-02
Maximum smoothed value .... = 7.47067E-01
First moment .... = 2.15207E-02
Second moment .... = 1.14043E-02
Hmo .... = 1.126
Tp .... = 5.020

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.69997E-01
Maximum smoothed value .... = 6.34299E+00
First moment .... = 2.04555E-01
Second moment .... = 7.18723E-02
Umo .... = 3.510
Tp .... = 5.020

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.48398E-06
Maximum smoothed value .... = 7.04783E-07
First moment .... = 1.71966E-07
Second moment .... = 1.12208E-07
Umo .... = .005
Tp .... = 1.778

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.68062E-01
Maximum smoothed value .... = 6.28125E+00
First moment .... = 1.79631E-01
Second moment .... = 6.35654E-02
Umo .... = 3.269
Tp .... = 5.020

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.07131E-02
Maximum smoothed value .... = 4.97709E-02
First moment .... = 2.98218E-03
Second moment .... = 1.38447E-03
Umo .... = .414
Tp .... = 5.020

Test Identification .... : s155-04

Reflection Coefficients for Data file .... : s155-04.wrl

Water Depth (Feet) .... = 2.90
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.05793E-01
Maximum smoothed value .... = 8.05160E+00
First moment .... = 1.04779E-01
Second moment .... = 4.00249E-02
Hmo .... = 2.212
Tp .... = 2.073

*** Reflected wave energy ***
Total smoothed energy .... = 3.69101E-02
Maximum smoothed value .... = 1.38609E+00
First moment .... = 1.52400E-02
Second moment .... = 6.39637E-03
Hmo .... = .768
Reflection coefficient .... = .347

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.93891E-01
Maximum smoothed value .... = 3.39598E+00
First moment .... = 4.61093E-02
Second moment .... = 1.60045E-02
Hmo .... = 1.770
Tp .... = 2.073

*** Reflected wave energy ***
Total smoothed energy .... = 4.87263E-03
Maximum smoothed value .... = 1.10612E-01
First moment .... = 1.07142E-03
Second moment .... = .279
Hmo .... = .158
Reflection coefficient .... = ...

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.02996E-01
Maximum smoothed value .... = 3.96448E+00
First moment .... = 2.00332E-02
Second moment .... = 3.91700E-03
Hmo .... = 1.284
Tp .... = 4.231

*** Reflected wave energy ***
Total smoothed energy .... = 1.69797E-03
Maximum smoothed value .... = 2.80574E-02
First moment .... = 1.79917E-04
Second moment .... = 3.50018E-05
Hmo .... = .133
Reflection coefficient .... = .103

Test Identification .... : s155-04

Reflection Coefficients for Data file .... : s155-04.wrl

Water Depth (Feet) .... = 2.90
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.29779E-01
Maximum smoothed value .... = 3.85702E+00
First moment .... = 3.03151E-02
Second moment .... = 8.52070E-03
Hmo .... = 1.441
Tp .... = 3.969

*** Reflected wave energy ***
Total smoothed energy .... = 7.64628E-03
Maximum smoothed value .... = 1.51213E-01
First moment .... = 2.35923E-03
Second moment .... = 8.46372E-04
Hmo .... = .350
Reflection coefficient .... = .243

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.23090E-01
Maximum smoothed value .... = 3.89991E+00
First moment .... = 1.83991E-02
Second moment .... = 5.12206E-03
Hmo .... = 1.403
Tp .... = 3.908

*** Reflected wave energy ***
Total smoothed energy .... = 4.65834E-03
Maximum smoothed value .... = 1.13881E-01
First moment .... = 9.70853E-04
Second moment .... = 3.75608E-04
Hmo .... = .273
Reflection coefficient .... = .195

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.06183E-01
Maximum smoothed value .... = 4.09235E+00
First moment .... = 2.08810E-02
Second moment .... = 4.13168E-03
Hmo .... = 1.303
Tp .... = 3.969

*** Reflected wave energy ***
Total smoothed energy .... = 4.93736E-03
Maximum/smoothed value .... = 1.67210E-01
First moment .... = 9.36439E-04
Second moment .... = 1.88931E-04
Hmo .... = .281
Reflection coefficient .... = .216

Test Identification .... : s155-04

Run Identification .... : s155-04

Raw Data File .... : s155-04.wrl
Date of test .... : 12-FEB-1992   12:21:13

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.05135E-01
Maximum smoothed value .... = 3.06461E+00
First moment .... = 8.78723E-02
Second moment .... = 4.91202E-02
Hmo .... = 1.812
Tp .... = 2.016

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.23659E+00
Maximum smoothed value .... = 3.15813E+01
First moment .... = 4.20951E-01
Second moment .... = 1.70308E-01
Umo .... = 4.448
Tp .... = 4.000

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.33555E-01
Maximum smoothed value .... = 2.57120E+00
First moment .... = 9.18928E-03
Second moment .... = 2.12467E-03
Umo .... = 1.462
Tp .... = 73.143

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.34769E+00
Maximum smoothed value .... = 3.72636E+01
First moment .... = 4.60591E-01
Second moment .... = 1.84084E-01
Umo .... = 4.712
Tp .... = 4.197

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.41926E-02
Maximum smoothed value .... = 2.38038E-01
First moment .... = 4.87935E-03
Second moment .... = 2.47295E-03
Umo .... = .477
Tp .... = 3.179

Column 1

Test Identification .... : a155-05

Reflection Coefficients for Data file .... : a155-05.wrl

Water Depth (Feet) .... = 2.90
Data Channels used to compute Coefficients ... =   1   2   3
Distance between channels in feet .... =   7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.26981E-01
Maximum smoothed value .... = 3.52232E+00
First moment .... = 2.03566E-01
Second moment .... = 4.12653E-03
Hmo .... = 1.422
Tp .... = 5.636

*** Reflected wave energy ***
Total smoothed energy .... = 2.75471E-03
Maximum smoothed value .... = 3.82019E-02
First moment .... = 5.03262E-04
Second moment .... = 1.93560E-04
Hmo .... = .210
Reflection coefficient .... = .148
*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.02063E-01
Maximum smoothed value .... = 1.33118E+00
First moment .... = 4.06855E-02
Second moment .... = 1.96541E-02
Hmo .... = 1.278
Tp .... = 1.875

*** Reflected wave energy ***
Total smoothed energy .... = 8.62203E-03
Maximum smoothed value .... = 2.31822E-01
First moment .... = 5.30905E-03
Second moment .... = 3.45456E-03
Hmo .... = .371
Reflection coefficient .... = .291
*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.39254E-01
Maximum smoothed value .... = 3.49802E+00
First moment .... = 2.65732E-01
Second moment .... = 6.09745E-03
Hmo .... = 1.493
Tp .... = 5.565

*** Reflected wave energy ***
Total smoothed energy .... = 5.06174E-03
Maximum smoothed value .... = 1.05862E-01
First moment .... = 1.81148E-03
Second moment .... = 3.28167E-04
Hmo .... = .285
Reflection coefficient .... = .191

Column 2

Test Identification .... : a155-05

Reflection Coefficients for Data file .... : a155-05.wrl

Water Depth (Feet) .... = 2.90
Data Channels used to compute Coefficients ... =   5   6   7
Distance between channels in feet .... =   7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.25489E-02
Maximum smoothed value .... = 1.47537E+00
First moment .... = 1.38007E-02
Second moment .... = 3.53566E-03
Hmo .... = 1.000
Tp .... = 2.753

*** Reflected wave energy ***
Total smoothed energy .... = 1.99446E-03
Maximum smoothed value .... = 2.32887E-02
First moment .... = 3.40399E-04
Second moment .... = 9.47083E-05
Hmo .... = .160
Reflection coefficient .... = .160
*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.29639E-02
Maximum smoothed value .... = 1.25271E+00
First moment .... = 1.24649E-02
Second moment .... = 3.91224E-03
Hmo .... = 1.004
Tp .... = 2.753

*** Reflected wave energy ***
Total smoothed energy .... = 2.18032E-03
Maximum smoothed value .... = 2.14188E-02
First moment .... = 7.43366E-04
Second moment .... = 3.38724E-04
Hmo .... = .187
Reflection coefficient .... = .186
*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.33571E-02
Maximum smoothed value .... = 1.87833E+00
First moment .... = 1.81312E-02
Second moment .... = 5.02393E-03
Hmo .... = 1.083
Tp .... = 2.753

*** Reflected wave energy ***
Total smoothed energy .... = 3.97681E-03
Maximum smoothed value .... = 1.05615E-01
First moment .... = 9.89041E-04
Second moment .... = 2.85048E-04
Hmo .... = .252
Reflection coefficient .... = .233

Column 3

Test Identification .... : a155-05

Run Identification .... : a155-05

Raw Data File .... : a155-05.wrl
Date of test .... : 12-FEB-1992 12:39:57

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.75424E-01
Maximum smoothed value .... = 2.20968E+00
First moment .... = 6.61328E-02
Second moment .... = 3.43630E-02
Hmo .... = 1.675
Tp .... = 5.689

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.24375E+00
Maximum smoothed value .... = 2.86445E+01
First moment .... = 3.51525E-01
Second moment .... = 1.30463E-01
Umo .... = 4.461
Tp .... = 5.626

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.33951E-01
Maximum smoothed value .... = 2.52125E+00
First moment .... = 9.28367E-03
Second moment .... = 2.19533E-03
Umo .... = 1.464
Tp .... = 73.143

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.67695E-01
Maximum smoothed value .... = 1.83477E+01
First moment .... = 3.08971E-01
Second moment .... = 1.27262E-01
Umo .... = 3.935
Tp .... = 5.689

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.09816E-01
Maximum smoothed value .... = 1.40509E-01
First moment .... = 5.83222E-01
Second moment .... = 2.99409E-03
Umo .... = .551
Tp .... = 5.689

Test Identification .... : t155-06

Run Identification .... : t155-06

Raw Data File .... : t155-06.wrl
Date of test .... : 12-FEB-1992   13:45:44

--- Wave Gauge 4 Summary ---
--- Total Wave Energy ---

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 8.17269E-02
Maximum smoothed value .... = 1.76948E+00
First moment .... = 2.66513E-02
Second moment .... = 1.17257E-02
Hmo .... = 1.144
Tp .... = 4.785

--- Current Meter Summary Leeward Gauge ---
--- Horizontal Current Energy Channel 8 ---

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.47908E-01
Maximum smoothed value .... = 2.09545E+01
First moment .... = 2.06008E-01
Second moment .... = 6.89568E-02
Umo .... = 3.459
Tp .... = 4.785

--- Vertical Current Energy Channel 9 ---

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.53504E-01
Maximum smoothed value .... = 1.29599E+01
First moment .... = 4.44400E-02
Second moment .... = 2.46377E-02
Umo .... = 2.014
Tp .... = 73.163

--- Current Meter Summary Leeward Gauge ---
--- Horizontal Current Energy Channel 10 ---

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.87153E-01
Maximum smoothed value .... = 1.37664E+01
First moment .... = 1.76118E-01
Second moment .... = 6.27214E-02
Umo .... = 3.065
Tp .... = 4.830

--- Vertical Current Energy Channel 11 ---

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.00371E-03
Maximum smoothed value .... = 6.43661E-02
First moment .... = 1.94531E-03
Second moment .... = 8.83357E-04
Umo .... = .310
Tp .... = 2.381

Test Identification .... : t155-06

Reflection Coefficients for Data file ...... : t155-06.wrl

Water Depth (Feet) .... = 2.90
Data Channels used to compute Coefficients .. = 5 6 7
Distance between channels in feet .... = 7.00 3.00

--- Smoothed spectral densities for DL = 7.0 Ft. ---
--- Incident wave energy ---

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.09999E-02
Maximum smoothed value .... = 1.24975E+00
First moment .... = 1.52612E-02
Second moment .... = 4.47749E-03
Hmo .... = .988
Tp .... = 2.393

--- Reflected wave energy ---

Total smoothed energy .... = 1.26019E-03
Maximum smoothed value .... = 2.87226E-02
First moment .... = 2.83642E-04
Second moment .... = 7.72877E-05
Hmo .... = .142
Reflection coefficient .... = .144   <--------

--- Smoothed spectral densities for DL = 3.0 Ft. ---
--- Incident wave energy ---

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.14045E-02
Maximum smoothed value .... = 1.05181E+00
First moment .... = 1.28859E-02
Second moment .... = 4.69075E-03
Hmo .... = .991
Tp .... = 4.785

--- Reflected wave energy ---

Total smoothed energy .... = 1.45110E-03
Maximum smoothed value .... = 3.48201E-02
First moment .... = 7.55030E-04
Second moment .... = 4.80617E-04
Hmo .... = .152
Reflection coefficient .... = .154   <--------

--- Smoothed spectral densities for DL = 10.0 Ft. ---
--- Incident wave energy ---

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.01694E-02
Maximum smoothed value .... = 1.16444E+00
First moment .... = 4.82240E-03
Second moment .... = 7.78468E-04
Hmo .... = .695
Tp .... = 4.741

--- Reflected wave energy ---

Total smoothed energy .... = 9.00705E-04
Maximum smoothed value .... = 3.12468E-02
First moment .... = 1.55921E-04
Second moment .... = 2.88861E-05
Hmo .... = .120
Reflection coefficient .... = .173   <--------

---

Test Identification .... : t155-06

Reflection Coefficients for Data file ...... : t155-06.wrl

Water Depth (Feet) .... = 2.90
Data Channels used to compute Coefficients .. = 1 2 3
Distance between channels in feet .... = 7.00 2.50

--- Smoothed spectral densities for DL = 7.0 Ft. ---
--- Incident wave energy ---

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.66525E-02
Maximum smoothed value .... = 2.14073E+00
First moment .... = 1.16631E-02
Second moment .... = 2.43834E-03
Hmo .... = 1.033
Tp .... = 4.785

--- Reflected wave energy ---

Total smoothed energy .... = 7.38096E-04
Maximum smoothed value .... = 1.61197E-02
First moment .... = 1.68468E-04
Second moment .... = 4.55048E-05
Hmo .... = .109
Reflection coefficient .... = .105   <--------

--- Smoothed spectral densities for DL = 2.5 Ft. ---
--- Incident wave energy ---

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.54684E-02
Maximum smoothed value .... = 1.92009E+00
First moment .... = 7.16207E-03
Second moment .... = 2.85699E-03
Hmo .... = .942
Tp .... = 4.785

--- Reflected wave energy ---

Total smoothed energy .... = 8.70948E-04
Maximum smoothed value .... = 1.61199E-02
First moment .... = 3.78048E-04
Second moment .... = 1.94192E-04
Hmo .... = .118
Reflection coefficient .... = .125   <--------

--- Smoothed spectral densities for DL = 9.5 Ft. ---
--- Incident wave energy ---

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.34125E-02
Maximum smoothed value .... = 2.14369E+00
First moment .... = 8.75947E-03
Second moment .... = 1.04796E-03
Hmo .... = .942
Tp .... = 4.785

--- Reflected wave energy ---

Total smoothed energy .... = 7.01872E-04
Maximum smoothed value .... = 2.42108E-02
First moment .... = 1.29005E-04
Second moment .... = 2.71701E-05
Hmo .... = .106
Reflection coefficient .... = .113   <--------

Column 1 (Leeward)

Test Identification .... : s120-01

Reflection Coefficients for Data file .... : s120-01.wrl

Water Depth (Feet) .... = 1.25
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.98317E-02
Maximum smoothed value .... = 5.51044E-01
First moment .... = 3.74708E-03
Second moment .... = 8.43693E-04
Hmo .... = .563
Tp .... = 5.447

*** Reflected wave energy ***
Total smoothed energy .... = 3.20608E-03
Maximum smoothed value .... = 7.33789E-02
First moment .... = 7.83628E-04
Second moment .... = 2.17417E-04
Hmo .... = .227
Reflection coefficient .... = .402

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.70874E-02
Maximum smoothed value .... = 3.99749E-01
First moment .... = 3.75230E-03
Second moment .... = 1.62641E-03
Hmo .... = .523
Tp .... = 5.389

*** Reflected wave energy ***
Total smoothed energy .... = 1.62066E-03
Maximum smoothed value .... = 5.33549E-02
First moment .... = 1.00228E-04
Second moment .... = 5.71135E-05
Hmo .... = .161
Reflection coefficient .... = .308

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.65354E-02
Maximum smoothed value .... = 7.93825E-01
First moment .... = 3.06425E-03
Second moment .... = 4.59023E-04
Hmo .... = .575
Tp .... = 5.389

*** Reflected wave energy ***
Total smoothed energy .... = 3.96721E-03
Maximum smoothed value .... = 1.97903E-01
First moment .... = 5.99949E-04
Second moment .... = 8.94991E-05
Hmo .... = .252
Reflection coefficient .... = .440

Column 2 (Middle)

Test Identification .... : s120-01

Reflection Coefficients for Data file .... : s120-01.wrl

Water Depth (Feet) .... = 1.25
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.70122E-02
Maximum smoothed value .... = 5.82592E-01
First moment .... = 5.03890E-03
Second moment .... = 1.55627E-03
Hmo .... = .522
Tp .... = 2.723

*** Reflected wave energy ***
Total smoothed energy .... = 1.39839E-03
Maximum smoothed value .... = 4.97435E-02
First moment .... = 4.21739E-04
Second moment .... = 1.31865E-04
Hmo .... = .150
Reflection coefficient .... = .287

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.72505E-02
Maximum smoothed value .... = 4.71832E-01
First moment .... = 1.10176E-02
Second moment .... = 5.09659E-03
Hmo .... = .660
Tp .... = 1.835

*** Reflected wave energy ***
Total smoothed energy .... = 1.63728E-03
Maximum smoothed value .... = 2.83202E-02
First moment .... = 5.29335E-04
Second moment .... = 2.17265E-04
Hmo .... = .162
Reflection coefficient .... = .245

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.33748E-03
Maximum smoothed value .... = 1.27893E-01
First moment .... = 5.03591E-04
Second moment .... = 7.65099E-05
Hmo .... = .231
Tp .... = 5.389

*** Reflected wave energy ***
Total smoothed energy .... = 2.62671E-05
Maximum smoothed value .... = 9.70671E-04
First moment .... = 4.27662E-06
Second moment .... = 8.51377E-07
Hmo .... = .021
Reflection coefficient .... = .089

Column 3 (Right)

Test Identification .... : s120-01

Run Identification .... : s120-01

Raw Data File .... : s120-01.wrl
Date of test .... : 13-FEB-1992   08:45:01

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.61005E-02
Maximum smoothed value .... = 3.37917E-01
First moment .... = 5.20106E-03
Second moment .... = 2.78728E-01
Hmo .... = .508
Tp .... = 5.447

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 4.81324E-01
Maximum smoothed value .... = 9.56600E+00
First moment .... = 1.76660E-01
Second moment .... = 9.71319E-02
Umo .... = 2.775
Tp .... = 5.447

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.70599E-02
Maximum smoothed value .... = 9.80674E-01
First moment .... = 1.47029E-02
Second moment .... = 9.19468E-03
Umo .... = .955
Tp .... = 73.143

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.41298E-01
Maximum smoothed value .... = 4.00868E+00
First moment .... = 9.34701E-02
Second moment .... = 5.13676E-01
Umo .... = 1.965
Tp .... = 5.333

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.58738E-03
Maximum smoothed value .... = 6.13293E-02
First moment .... = 3.47187E-03
Second moment .... = 2.10889E-03
Umo .... = .392
Tp .... = 1.842

Test Identification .... : a120-02

Run Identification .... : a120-02

Raw Data File .... : a120-02.wrl
Date of test .... : 13-FEB-1992   09:13:11

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.0171E-02
Maximum smoothed value .... = 8.3842E-03
First moment .... = 3.5197E-03
Second moment .... = 1.8516E-03
Hmo .... = .404
Tp .... = 5.689

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.8996E-01
Maximum smoothed value .... = 2.0240E+00
First moment .... = 9.5720E-02
Second moment .... = 4.4166E-02
Umo .... = 2.128
Tp .... = 5.565

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.71586E-01
Maximum smoothed value .... = 9.74992E+00
First moment .... = 3.4672E-02
Second moment .... = 1.94995E-02
Umo .... = 1.657
Tp .... = 73.143

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.93567E-01
Maximum smoothed value .... = 1.36417E+00
First moment .... = 6.53265E-02
Second moment .... = 3.11212E-02
Umo .... = 1.760
Tp .... = 6.024

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.4274E-01
Maximum smoothed value .... = 1.50272E-02
First moment .... = 1.99590E-03
Second moment .... = 1.21906E-03
Umo .... = .295
Tp .... = 6.321

Test Identification .... : a120-02

Reflection Coefficients for Data file .... : a120-02.wrl

Water Depth (Feet) .... = 1.25
Data Channels used to compute Coefficients ... =   5   6   7
Distance between channels in feet .... =   7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.64161E-03
Maximum smoothed value .... = 6.17762E-02
First moment .... = 1.30187E-03
Second moment .... = 3.43738E-04
Hmo .... = .300
Tp .... = 2.768

*** Reflected wave energy ***
Total smoothed energy .... = 8.03142E-04
Maximum smoothed value .... = 8.51339E-03
First moment .... = 1.60762E-04
Second moment .... = 3.99347E-05
Hmo .... = .114
Reflection coefficient .... = .378

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.03614E-02
Maximum smoothed value .... = 4.26428E-02
First moment .... = 3.59849E-03
Second moment .... = 1.53611E-03
Hmo .... = .407
Tp .... = 2.000

*** Reflected wave energy ***
Total smoothed energy .... = 6.24449E-04
Maximum smoothed value .... = 7.06888E-03
First moment .... = 1.45187E-04
Second moment .... = 6.04089E-05
Hmo .... = .100
Reflection coefficient .... = .245

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 4.44410E-03
Maximum smoothed value .... = 5.96679E-02
First moment .... = 6.99135E-04
Second moment .... = 1.19481E-04
Hmo .... = .267
Tp .... = 3.737

*** Reflected wave energy ***
Total smoothed energy .... = 1.25225E-03
Maximum smoothed value .... = 3.03945E-02
First moment .... = 1.88009E-04
Second moment .... = 3.17835E-05
Hmo .... = .142
Reflection coefficient .... = .531

Test Identification .... : a120-02

Reflection Coefficients for Data file .... : a120-02.wrl

Water Depth (Feet) .... = 1.25
Data Channels used to compute Coefficients ... =   1   2   3
Distance between channels in feet .... =   7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.58970E-03
Maximum smoothed value .... = 9.46337E-03
First moment .... = 1.29220E-03
Second moment .... = 2.56173E-04
Hmo .... = .348
Tp .... = 5.689

*** Reflected wave energy ***
Total smoothed energy .... = 7.39614E-04
Maximum smoothed value .... = 1.06710E-02
First moment .... = 1.38262E-04
Second moment .... = 3.09691E-05
Hmo .... = .110
Reflection coefficient .... = .316

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 8.67006E-03
Maximum smoothed value .... = 7.09231E-02
First moment .... = 2.24742E-03
Second moment .... = 1.08657E-03
Hmo .... = .373
Tp .... = 5.689

*** Reflected wave energy ***
Total smoothed energy .... = 6.03921E-04
Maximum smoothed value .... = 6.53099E-03
First moment .... = 1.58616E-04
Second moment .... = 8.94308E-05
Hmo .... = .098
Reflection coefficient .... = .264

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.03603E-03
Maximum smoothed value .... = 1.32874E-01
First moment .... = 1.41449E-03
Second moment .... = 2.34672E-04
Hmo .... = .380
Tp .... = 5.689

*** Reflected wave energy ***
Total smoothed energy .... = 1.42381E-03
Maximum smoothed value .... = 2.39462E-02
First moment .... = 2.18049E-04
Second moment .... = 3.60192E-05
Hmo .... = .151
Reflection coefficient .... = .397

Test Identification .... : s120-03

Reflection Coefficients for Data file .... : s120-03.wrt

Water Depth (Feet) .... = 1.25
Data Channels used to compute Coefficients ... = 1   2   3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.11298E-02
Maximum smoothed value .... = 4.32020E-01
First moment .... = 2.26399E-03
Second moment .... = 4.59208E-04
Hmo .... = .423
Tp .... = 4.094

*** Reflected wave energy ***
Total smoothed energy .... = 5.47032E-04
Maximum smoothed value .... = 2.05799E-02
First moment .... = 1.11670E-04
Second moment .... = 2.30190E-05
Hmo .... = .094
Reflection coefficient .... = .221

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.34001E-02
Maximum smoothed value .... = 1.37243E-01
First moment .... = 8.06207E-03
Second moment .... = 4.35208E-03
Hmo .... = .612
Tp .... = 1.369

*** Reflected wave energy ***
Total smoothed energy .... = 3.53411E-04
Maximum smoothed value .... = 1.05185E-02
First moment .... = 2.69460E-04
Second moment .... = 1.40406E-04
Hmo .... = .094
Reflection coefficient .... = .154

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.81014E-02
Maximum smoothed value .... = 7.09916E-01
First moment .... = 3.87663E-03
Second moment .... = 8.31794E-04
Hmo .... = .538
Tp .... = 4.063

*** Reflected wave energy ***
Total smoothed energy .... = 2.41417E-03
Maximum smoothed value .... = 9.23570E-02
First moment .... = 5.17330E-04
Second moment .... = 1.11259E-04
Hmo .... = .197
Reflection coefficient .... = .365

Test Identification .... : s120-03

Reflection Coefficients for Data file .... : s120-03.wrt

Water Depth (Feet) .... = 1.25
Data Channels used to compute Coefficients ... = 5   6   7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.14998E-02
Maximum smoothed value .... = 4.44887E-01
First moment .... = 2.32895E-03
Second moment .... = 4.73035E-04
Hmo .... = .429
Tp .... = 4.063

*** Reflected wave energy ***
Total smoothed energy .... = 7.20608E-04
Maximum smoothed value .... = 2.67311E-02
First moment .... = 1.49725E-04
Second moment .... = 3.08447E-05
Hmo .... = .107
Reflection coefficient .... = .250

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.60793E-02
Maximum smoothed value .... = 4.11116E-01
First moment .... = 9.76318E-03
Second moment .... = 4.85084E-03
Hmo .... = .646
Tp .... = 4.063

*** Reflected wave energy ***
Total smoothed energy .... = 1.36924E-03
Maximum smoothed value .... = 3.19935E-02
First moment .... = 6.39203E-04
Second moment .... = 3.66068E-04
Hmo .... = .148
Reflection coefficient .... = .229

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.34915E-02
Maximum smoothed value .... = 1.30272E+00
First moment .... = 7.24405E-03
Second moment .... = 1.56911E-03
Hmo .... = .732
Tp .... = 4.031

*** Reflected wave energy ***
Total smoothed energy .... = 1.00189E-02
Maximum/smoothed value .... = 3.89363E-01
First moment .... = 2.16987E-03
Second moment .... = 4.70400E-04
Hmo .... = .400
Reflection coefficient .... = .347

Test Identification .... : s120-03

Run Identification .... : s120-03

Raw Data File .... : s120-03.wrt
Date of test .... : 13-FEB-1992 10:01:13

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.47297E-02
Maximum smoothed value .... = 4.87565E-01
First moment .... = 1.19960E-02
Second moment .... = 7.22398E-03
Hmo .... = .629
Tp .... = 2.016

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.06590E-01
Maximum smoothed value .... = 1.11756E+01
First moment .... = 2.32635E-01
Second moment .... = 1.23429E-01
Umo .... = 2.847
Tp .... = 2.016

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.33558E-01
Maximum smoothed value .... = 2.52168E+00
First moment .... = 9.19301E-03
Second moment .... = 2.12554E-03
Umo .... = 1.462
Tp .... = 73.143

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.56765E-01
Maximum smoothed value .... = 9.01249E+00
First moment .... = 1.79521E-01
Second moment .... = 1.01990E-01
Umo .... = 2.389
Tp .... = 2.006

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.01725E-02
Maximum smoothed value .... = 1.34009E-01
First moment .... = 5.28195E-03
Second moment .... = 3.56872E-03
Umo .... = .403
Tp .... = 2.008

Column 1

Test Identification .... : a120-04

Reflection Coefficients for Data file .... : a120-04.wrl

Water Depth (Feet) .... = 1.25
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

**** Smoothed spectral densities for DL = 7.0 Ft. ****
**** Incident wave energy ****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.29722E-02
Maximum smoothed value .... = 4.95923E-01
First moment .... = 2.17420E-03
Second moment .... = 3.24493E-04
Hmo .... = .430
Tp .... = 4.741

**** Reflected wave energy ****
Total smoothed energy .... = 3.13192E-04
Maximum smoothed value .... = 1.94720E-02
First moment .... = 8.87464E-05
Second moment .... = 1.53603E-05
Hmo .... = .091
Reflection coefficient .... = .201 <----

**** Smoothed spectral densities for DL = 2.5 Ft. ****
**** Incident wave energy ****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.40719E-02
Maximum smoothed value .... = 3.46220E-01
First moment .... = 1.10510E-02
Second moment .... = 6.64003E-03
Hmo .... = .644
Tp .... = 1.148

**** Reflected wave energy ****
Total smoothed energy .... = 1.34436E-03
Maximum smoothed value .... = 4.07599E-03
First moment .... = 8.61907E-04
Second moment .... = 6.07100E-04
Hmo .... = .147
Reflection coefficient .... = .237 <----

**** Smoothed spectral densities for DL = 9.5 Ft. ****
**** Incident wave energy ****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.03136E-02
Maximum smoothed value .... = 7.14135E-01
First moment .... = 3.39818E-03
Second moment .... = 6.17517E-04
Hmo .... = .541
Tp .... = 4.697

**** Reflected wave energy ****
Total smoothed energy .... = 1.90641E-03
Maximum smoothed value .... = 7.33128E-02
First moment .... = 3.49721E-04
Second moment .... = 6.45496E-05
Hmo .... = .175
Reflection coefficient .... = .323 <----

Column 2

Test Identification .... : a120-04

Reflection Coefficients for Data file .... : a120-04.wrl

Water Depth (Feet) .... = 1.25
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

**** Smoothed spectral densities for DL = 7.0 Ft. ****
**** Incident wave energy ****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.51422E-03
Maximum smoothed value .... = 9.73374E-02
First moment .... = 4.32166E-04
Second moment .... = 7.47661E-05
Hmo .... = .201
Tp .... = 4.785

**** Reflected wave energy ****
Total smoothed energy .... = 3.09127E-04
Maximum smoothed value .... = 1.15538E-02
First moment .... = 5.34429E-05
Second moment .... = 9.41490E-06
Hmo .... = .070
Reflection coefficient .... = .351 <----

**** Smoothed spectral densities for DL = 3.0 Ft. ****
**** Incident wave energy ****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.81231E-02
Maximum smoothed value .... = 9.08504E-01
First moment .... = 9.54090E-03
Second moment .... = 3.45690E-03
Hmo .... = .671
Tp .... = 2.317

**** Reflected wave energy ****
Total smoothed energy .... = 9.25490E-04
Maximum smoothed value .... = 2.73108E-02
First moment .... = 4.56978E-04
Second moment .... = 2.34999E-04
Hmo .... = .122
Reflection coefficient .... = .181 <----

**** Smoothed spectral densities for DL = 10.0 Ft. ****
**** Incident wave energy ****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 4.47101E-03
Maximum smoothed value .... = 1.73786E-01
First moment .... = 8.29645E-04
Second moment .... = 1.54385E-04
Hmo .... = .267
Tp .... = 4.697

**** Reflected wave energy ****
Total smoothed energy .... = 7.75387E-04
Maximum/smoothed value .... = 2.81629E-02
First moment .... = 1.45176E-04
Second moment .... = 2.74219E-05
Hmo .... = .111
Reflection coefficient .... = .416 <----

Column 3

Test Identification .... : a120-04

Run Identification .... : a120-04

Raw Data File .... : a120-04.wrl
Date of test .... : 13-FEB-1992   10:18:43

**** Wave Gauge 4 Summary ****
**** Total Wave Energy ****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.36818E-02
Maximum smoothed value .... = 4.01009E-01
First moment .... = 1.03606E-02
Second moment .... = 6.33402E-03
Hmo .... = .616
Tp .... = 1.542

**** Current Meter Summary Seaward Gauge ****
**** Horizontal Current Energy Channel 8 ****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 4.60720E-01
Maximum smoothed value .... = 7.64803E+00
First moment .... = 2.12548E-01
Second moment .... = 1.20165E-01
Umo .... = 2.715
Tp .... = .538

**** Vertical Current Energy Channel 9 ****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.33558E-01
Maximum smoothed value .... = 2.52168E+00
First moment .... = 9.19301E-03
Second moment .... = 2.12554E-03
Umo .... = 1.462
Tp .... = 73.143

**** Current Meter Summary Leeward Gauge ****
**** Horizontal Current Energy Channel 10 ****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.29153E-01
Maximum smoothed value .... = 4.39589E+00
First moment .... = 1.48468E-01
Second moment .... = 8.18999E-02
Umo .... = 2.297
Tp .... = .538

**** Vertical Current Energy Channel 11 ****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.93491E-03
Maximum smoothed value .... = 1.18156E-01
First moment .... = 4.02314E-03
Second moment .... = 2.54891E-03
Umo .... = .399
Tp .... = 1.542

Column 1

Test Identification : a120-05

Reflection Coefficients for Data file : a120-05.wrt

Water Depth (Feet) = 1.25
Data Channels used to compute Coefficients = 1 2 3
Distance between channels in feet = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 1.29667E-02
Maximum smoothed value = 5.64237E-01
First moment = 2.22514E-03
Second moment = 3.83194E-04
Umo = .455
Tp = 4.741

*** Reflected wave energy ***
Total smoothed energy = 5.26418E-04
Maximum smoothed value = 1.99477E-02
First moment = 9.10722E-05
Second moment = 1.60019E-05
Umo = .092
Reflection coefficient = .201

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 2.60363E-02
Maximum smoothed value = 3.44036E-01
First moment = 1.09734E-02
Second moment = 6.57560E-03
Umo = .645
Tp = 4.741

*** Reflected wave energy ***
Total smoothed energy = 1.52973E-03
Maximum smoothed value = 4.62968E-02
First moment = 9.07758E-04
Second moment = 6.99006E-04
Umo = .156
Reflection coefficient = .242

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 1.88851E-02
Maximum smoothed value = 7.36513E-01
First moment = 3.46390E-03
Second moment = 6.36761E-04
Umo = .550
Tp = 4.697

*** Reflected wave energy ***
Total smoothed energy = 2.03513E-03
Maximum smoothed value = 7.81200E-02
First moment = 3.73007E-04
Second moment = 6.88524E-05
Umo = .180
Reflection coefficient = .328

Column 2

Test Identification : a120-05

Reflection Coefficients for Data file : a120-05.wrt

Water Depth (Feet) = 1.25
Data Channels used to compute Coefficients = 5 6 7
Distance between channels in feet = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 1.99372E-03
Maximum smoothed value = 7.63596E-02
First moment = 3.44214E-04
Second moment = 6.00175E-05
Umo = .179
Tp = 4.785

*** Reflected wave energy ***
Total smoothed energy = 2.51418E-04
Maximum smoothed value = 9.33761E-03
First moment = 4.37108E-05
Second moment = 7.76135E-06
Umo = .063
Reflection coefficient = .355

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 2.86118E-02
Maximum smoothed value = 8.78743E-01
First moment = 1.01469E-02
Second moment = 3.86034E-03
Umo = .677
Tp = 2.317

*** Reflected wave energy ***
Total smoothed energy = 7.77998E-04
Maximum smoothed value = 2.18001E-02
First moment = 3.77720E-04
Second moment = 1.94174E-04
Umo = .112
Reflection coefficient = .165

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 3.62990E-03
Maximum smoothed value = 1.39828E-01
First moment = 6.73875E-04
Second moment = 1.25501E-04
Umo = .241
Tp = 4.697

*** Reflected wave energy ***
Total smoothed energy = 7.01927E-04
Maximum smoothed value = 2.47066E-02
First moment = 1.31444E-04
Second moment = 2.49065E-05
Umo = .106
Reflection coefficient = .440

Column 3

Test Identification : a120-05

Run Identification : a120-05

Raw Data File : a120-05.wrl
Date of test : 13-FEB-1992 10:37:37

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 2.03464E-02
Maximum smoothed value = 3.32298E-01
First moment = 8.91227E-03
Second moment = 5.41232E-03
Umo = .574
Tp = 1.542

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth = 13
Total smoothed energy = 4.33319E-01
Maximum smoothed value = 7.19346E+00
First moment = 1.99428E-01
Second moment = 1.14069E-01
Umo = 2.633
Tp = 1.542

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth = 13
Total smoothed energy = 1.33476E-01
Maximum smoothed value = 2.52923E+00
First moment = 9.13973E-03
Second moment = 2.08980E-03
Umo = 1.461
Tp = 73.143

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth = 13
Total smoothed energy = 2.96935E-01
Maximum smoothed value = 3.67112E+00
First moment = 1.28211E-01
Second moment = 6.99799E-02
Umo = 2.180
Tp = 2.327

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth = 13
Total smoothed energy = 9.40662E-02
Maximum smoothed value = 9.52971E-02
First moment = 3.65695E-03
Second moment = 2.28066E-03
Umo = .398
Tp = 1.547

Test Identification .... : e120-06

Run Identification .... : e120-06

Raw Data File .... : e120-06.wrl
Date of test .... : 13-FEB-1992   10:52:19

**** Wave Gauge 4 Summary ****
*** Total Wave Energy ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.53135E-02
Maximum smoothed value .... = 3.45170E-01
First moment .... = 1.07232E-02
Second moment .... = 6.92183E-03
Hmo .... = .036
Tp .... = 5.447

**** Current Meter Summary Seaward Gauge ****
*** Horizontal Current Energy Channel 8 ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 4.90350E-01
Maximum smoothed value .... = 8.99631E+00
First moment .... = 1.89266E-01
Second moment .... = 1.03643E-01
Umo .... = 2.801
Tp .... = 5.447

*** Vertical Current Energy Channel 9 ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.33558E-01
Maximum smoothed value .... = 2.52168E+00
First moment .... = 9.19301E-03
Second moment .... = 2.12354E-03
Umo .... = 1.462
Tp .... = 73.143

**** Current Meter Summary Leeward Gauge ****
*** Horizontal Current Energy Channel 10 ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.59344E-01
Maximum smoothed value .... = 4.5687 9E+00
First moment .... = 1.70890E-01
Second moment .... = 1.07493E-01
Umo .... = 2.398
Tp .... = 1.365

*** Vertical Current Energy Channel 11 ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.50572E-02
Maximum smoothed value .... = 1.97735E-01
First moment .... = 7.83710E-03
Second moment .... = 5.14261E-03
Umo .... = .491
Tp .... = 1.362

Test Identification .... : e120-06

Reflection Coefficients for Data file .... : e120-06.wrl

Water Depth (Feet) .... = 1.25
Data Channels used to compute Coefficients ... = 5   6   7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.09303E-02
Maximum smoothed value .... = 1.10904E+00
First moment .... = 9.40629E-03
Second moment .... = 2.93983E-03
Hmo .... = .703
Tp .... = 2.753

*** Reflected wave energy ***

Total smoothed energy .... = 4.06723E-03
Maximum smoothed value .... = 1.57370E-01
First moment .... = 1.28907E-03
Second moment .... = 4.11277E-04
Hmo .... = .255
Reflection coefficient .... = .362

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.14913E-02
Maximum smoothed value .... = 5.55254E-01
First moment .... = 1.14722E-02
Second moment .... = 4.77199E-03
Hmo .... = .710
Tp .... = 1.855

*** Reflected wave energy ***

Total smoothed energy .... = 1.66123E-03
Maximum smoothed value .... = 3.59173E-02
First moment .... = 5.55201E-04
Second moment .... = 2.30504E-04
Hmo .... = .163
Reflection coefficient .... = .230

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.85174E-03
Maximum smoothed value .... = 1.47711E-01
First moment .... = 5.82606E-04
Second moment .... = 8.66932E-05
Hmo .... = .248
Tp .... = 5.447

*** Reflected wave energy ***

Total smoothed energy .... = 8.21303E-05
Maximum smoothed value .... = 2.10366E-03
First moment .... = 1.34235E-05
Second moment .... = 2.35432E-06
Hmo .... = .036
Reflection coefficient .... = .146

Test Identification .... : e120-06

Reflection Coefficients for Data file .... : e120-06.wrl

Water Depth (Feet) .... = 1.25
Data Channels used to compute Coefficients ... = 1   2   3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.99049E-02
Maximum smoothed value .... = 5.54259E-01
First moment .... = 3.75004E-03
Second moment .... = 8.45317E-04
Hmo .... = .564
Tp .... = 5.447

*** Reflected wave energy ***

Total smoothed energy .... = 3.16500E-03
Maximum smoothed value .... = 6.94553E-02
First moment .... = 7.60436E-04
Second moment .... = 2.08712E-04
Hmo .... = .225
Reflection coefficient .... = .399

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.82364E-02
Maximum smoothed value .... = 3.33370E-01
First moment .... = 4.37283E-03
Second moment .... = 1.95764E-03
Hmo .... = .540
Tp .... = 5.447

*** Reflected wave energy ***

Total smoothed energy .... = 1.46810E-03
Maximum smoothed value .... = 4.37679E-02
First moment .... = 2.11012E-04
Second moment .... = 7.98064E-05
Hmo .... = .153
Reflection coefficient .... = .284

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.07152E-02
Maximum smoothed value .... = 8.01746E-01
First moment .... = 3.09061E-03
Second moment .... = 4.62873E-04
Hmo .... = .576
Tp .... = 5.389

*** Reflected wave energy ***

Total smoothed energy .... = 3.99903E-03
Maximum smoothed value .... = 1.52498E-01
First moment .... = 5.98762E-04
Second moment .... = 9.01511E-05
Hmo .... = .253
Reflection coefficient .... = .439

Column 1

Test Identification .... : s452-01

Reflection Coefficients for Data file .... : s452-01.wrl

Water Depth (Feet) .... = 1.00
Data Channels used to compute Coefficients ... 1 2 3
Distance between channels in feet .... = 7.00 2.50

* Smoothed spectral densities for DL = 7.0 Ft. *****
* Incident wave energy *****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.90227E-03
Maximum smoothed value .... = 2.16728E-01
First moment .... = 5.00787E-04
Second moment .... = 1.32108E-04
Ilmo .... = .174
Tp .... = 3.282

* Reflected wave energy *****
Total smoothed energy .... = 7.33269E-04
Maximum smoothed value .... = 8.74956E-02
First moment .... = 1.94061E-04
Second moment .... = 5.13966E-05
Ilmo .... = .621
Tp .... = <——

* Smoothed spectral densities for DL = 2.5 Ft. *****
* Incident wave energy *****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.64999E-03
Maximum smoothed value .... = 3.45726E-02
First moment .... = 2.89227E-03
Second moment .... = 1.47331E-03
Ilmo .... = .327
Tp .... = 1.407

* Reflected wave energy *****
Total smoothed energy .... = 3.89263E-04
Maximum smoothed value .... = 2.50757E-03
First moment .... = 1.86491E-04
Second moment .... = 1.00772E-04
Ilmo .... = .079
Reflection coefficient .... = .242
<——

* Smoothed spectral densities for DL = 9.5 Ft. *****
* Incident wave energy *****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.45178E-04
Maximum smoothed value .... = 3.12853E-02
First moment .... = 1.33299E-04
Second moment .... = 2.39247E-05
Ilmo .... = .109
Tp .... = 4.571

* Reflected wave energy *****
Total smoothed energy .... = 6.97998E-04
Maximum smoothed value .... = 2.96068E-02
First moment .... = 1.25297E-04
Second moment .... = 2.13599E-05
Ilmo .... = .104
Reflection coefficient .... = .968
<——

Column 2

Test Identification .... : s452-01

Reflection Coefficients for Data file .... : s452-01.wrl

Water Depth (Feet) .... = 1.00
Data Channels used to compute Coefficients ... 5 6 7
Distance between channels in feet .... = 7.00 3.00

* Smoothed spectral densities for DL = 7.0 Ft. *****
* Incident wave energy *****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.69001E-03
Maximum smoothed value .... = 6.84795E-01
First moment .... = 1.50231E-03
Second moment .... = 3.97558E-04
Ilmo .... = .302
Tp .... = 3.282

* Reflected wave energy *****
Total smoothed energy .... = 2.18061E-03
Maximum smoothed value .... = 2.73229E-01
First moment .... = 5.70001E-04
Second moment .... = 1.53368E-04
Ilmo .... = .187
Reflection coefficient .... = .619
<——

* Smoothed spectral densities for DL = 3.0 Ft. *****
* Incident wave energy *****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.69715E-02
Maximum smoothed value .... = 1.27084E-01
First moment .... = 5.71350E-03
Second moment .... = 2.25905E-03
Ilmo .... = .521
Tp .... = 2.723

* Reflected wave energy *****
Total smoothed energy .... = 9.34083E-04
Maximum smoothed value .... = 1.09931E-02
First moment .... = 4.20601E-04
Second moment .... = 2.14279E-04
Ilmo .... = .122
Reflection coefficient .... = .235
<——

* Smoothed spectral densities for DL = 10.0 Ft. *****
* Incident wave energy *****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.82230E-04
Maximum smoothed value .... = 5.24168E-03
First moment .... = 2.76717E-05
Second moment .... = 4.33464E-06
Ilmo .... = .034
Tp .... = 4.923

* Reflected wave energy *****
Total smoothed energy .... = 1.80844E-04
Maximum smoothed value .... = 5.26671E-03
First moment .... = 2.80188E-05
Second moment .... = 4.41897E-06
Ilmo .... = .034
Reflection coefficient .... = .996
<——

Column 3

Test Identification .... : s452-01

Run Identification .... : s452-01

Raw Data File .... : s452-01.wrl
Date of test .... : 13-FEB-1992   11:22:41

* Wave Gauge 4 Summary *****
* Total Wave Energy *****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 4.81079E-03
Maximum smoothed value .... = 1.71562E-02
First moment .... = 1.68939E-03
Second moment .... = 1.03468E-03
Ilmo .... = .277
Tp .... = 1.376

* Current Meter Summary Seaward Gauge *****
* Horizontal Current Energy Channel 8 *****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.03902E-01
Maximum smoothed value .... = 1.76429E+00
First moment .... = 1.95912E-01
Second moment .... = 8.94128E-02
Ilmo .... = 2.839
Tp .... = 2.781

* Vertical Current Energy Channel 9 *****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 8.30991E-02
Maximum smoothed value .... = 1.30856E-01
First moment .... = 2.11629E-02
Second moment .... = 1.31516E-02
Ilmo .... = 1.155
Tp .... = 10.286

* Current Meter Summary Leeward Gauge *****
* Horizontal Current Energy Channel 10 *****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.91275E-01
Maximum smoothed value .... = 1.21781E+00
First moment .... = 8.04691E-02
Second moment .... = 4.09658E-02
Ilmo .... = 1.749
Tp .... = 2.781

* Vertical Current Energy Channel 11 *****
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.19023E-01
Maximum smoothed value .... = 2.20217E-02
First moment .... = 2.13404E-03
Second moment .... = 1.29811E-03
Ilmo .... = .338
Tp .... = .955

Test Identification .... : s452-02

Reflection Coefficients for Data file .... : s452-02.wrl

Water Depth (Feet) .... = 1.00
Data Channels used to compute Coefficients ... =   1   2   3
Distance between channels in feet .... =   7.00 2.50

**** Smoothed spectral densities for DL = 7.0 Ft. ****
**** Incident wave energy ****
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 6.06731E-03
Maximum smoothed value .... = 1.48767E+00
First moment .... = 1.78653E-03
Second moment .... = 5.34267E-04
Hmo .... = .312
Tp .... = 2.909

**** Reflected wave energy ****
Total smoothed energy .... = 2.87346E-03
Maximum smoothed value .... = 6.71256E-01
First moment .... = 8.11813E-04
Second moment .... = 2.44341E-04
Hmo .... = .214
Reflection coefficient .... = .688   <
**** Smoothed spectral densities for DL = 2.5 Ft. ****
**** Incident wave energy ****
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 7.13662E-03
Maximum smoothed value .... = 1.46727E-01
First moment .... = 3.05427E-03
Second moment .... = 1.53393E-03
Hmo .... = .338
Tp .... = 1.407

**** Reflected wave energy ****
Total smoothed energy .... = 4.27346E-04
Maximum smoothed value .... = 7.95132E-03
First moment .... = 1.79908E-04
Second moment .... = 9.17149E-05
Hmo .... = .083
Reflection coefficient .... = .245   <
**** Smoothed spectral densities for DL = 9.5 Ft. ****
**** Incident wave energy ****
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.63791E-03
Maximum smoothed value .... = 3.27763E-02
First moment .... = 2.23611E-04
Second moment .... = 4.13210E-05
Hmo .... = .163
Tp .... = 4.063

**** Reflected wave energy ****
Total smoothed energy .... = 1.65617E-03
Maximum smoothed value .... = 3.33903E-02
First moment .... = 2.23608E-04
Second moment .... = 4.17527E-05
Hmo .... = .163
Reflection coefficient .... = .999   <

Test Identification .... : s452-02

Reflection Coefficients for Data file .... : s452-02.wrl

Water Depth (Feet) .... = 1.00
Data Channels used to compute Coefficients ... =   5   6   7
Distance between channels in feet .... =   7.00 3.00

**** Smoothed spectral densities for DL = 7.0 Ft. ****
**** Incident wave energy ****
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.83314E-02
Maximum smoothed value .... = 4.60569E+00
First moment .... = 5.46931E-03
Second moment .... = 1.64686E-03
Hmo .... = .542
Tp .... = 2.909

**** Reflected wave energy ****
Total smoothed energy .... = 7.86449E-03
Maximum smoothed value .... = 1.90085E+00
First moment .... = 2.29782E-03
Second moment .... = 6.89072E-04
Hmo .... = .355
Reflection coefficient .... = .655   <
**** Smoothed spectral densities for DL = 3.0 Ft. ****
**** Incident wave energy ****
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 2.68269E-02
Maximum smoothed value .... = 5.81938E-01
First moment .... = 1.11542E-02
Second moment .... = 5.47178E-03
Hmo .... = .655
Tp .... = 2.783

**** Reflected wave energy ****
Total smoothed energy .... = 2.71829E-03
Maximum smoothed value .... = 8.54694E-02
First moment .... = 1.44350E-03
Second moment .... = 8.65002E-04
Hmo .... = .209
Reflection coefficient .... = .318   <
**** Smoothed spectral densities for DL = 10.0 Ft. ****
**** Incident wave energy ****
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.06921E-01
Maximum smoothed value .... = 4.16424E+00
First moment .... = 2.11544E-02
Second moment .... = 4.21087E-03
Hmo .... = 1.308
Tp .... = 4.491

**** Reflected wave energy ****
Total smoothed energy .... = 1.06958E-01
Maximum smoothed value .... = 4.16325E+00
First moment .... = 2.11500E-02
Second moment .... = 4.21076E-03
Hmo .... = 1.308
Reflection coefficient .... = 1.000   <

Test Identification .... : s452-02

Run Identification .... : s452-02

Raw Data File .... : s452-02.wrl
Date of test .... : 13-FEB-1992   11:44:17

**** Wave Gauge 4 Summary ****
**** Total Wave Energy ****
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 3.43153E-03
Maximum smoothed value .... = 2.87339E-02
First moment .... = 8.05984E-04
Second moment .... = 4.61485E-04
Hmo .... = .234
Tp .... = 1.403

**** Current Meter Summary Seaward Gauge ****
**** Horizontal Current Energy Channel 8 ****
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 6.01086E-01
Maximum smoothed value .... = 1.69850E+01
First moment .... = 2.33551E-01
Second moment .... = 1.04066E-01
Umo .... = 3.101
Tp .... = 2.783

**** Vertical Current Energy Channel 9 ****
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.90116E-01
Maximum smoothed value .... = 5.50189E+00
First moment .... = 4.11388E-02
Second moment .... = 2.53494E-02
Umo .... = 1.744
Tp .... = 73.143

**** Current Meter Summary Leeward Gauge ****
**** Horizontal Current Energy Channel 10 ****
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.42031E-01
Maximum smoothed value .... = 4.20634E+00
First moment .... = 5.73890E-02
Second moment .... = 2.70143E-02
Umo .... = 1.507
Tp .... = 2.783

**** Vertical Current Energy Channel 11 ****
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 6.29023E-03
Maximum smoothed value .... = 6.60081E-02
First moment .... = 2.08098E-03
Second moment .... = 1.22304E-03
Umo .... = .317
Tp .... = 1.418

Column 1

Test Identification .... : ad549-01

Reflection Coefficients for Data file .... : ad549-01.wrl

Water Depth (Feet) .... = .92
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 7.96300E-03
Maximum smoothed value = 1.10566E-01
First moment = 1.14104E-03
Second moment = 2.31946E-04
Hmo = .356
Tp = 15.891

*** Reflected wave energy ***
Total smoothed energy = 7.96300E-03
Maximum smoothed value = 1.10566E-01
First moment = 1.14104E-03
Second moment = 2.31946E-04
Hmo = .357
Reflection coefficient = 1.002

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 7.85298E-02
Maximum smoothed value = 5.74495E-01
First moment = 1.94928E-02
Second moment = 8.02640E-03
Hmo = 1.119
Tp = 7.478

*** Reflected wave energy ***
Total smoothed energy = 6.19060E-02
Maximum smoothed value = 5.75518E-01
First moment = 1.24664E-02
Second moment = 5.03025E-03
Hmo = .995
Reflection coefficient = .889

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 1.31208E+01
Maximum smoothed value = 3.59430E+02
First moment = 2.42962E+00
Second moment = 4.57131E-01
Hmo = 14.489
Tp = 4.309

*** Reflected wave energy ***
Total smoothed energy = 1.31208E+01
Maximum smoothed value = 3.59454E+02
First moment = 2.42979E+00
Second moment = 4.57161E-01
Hmo = 14.490
Reflection coefficient = 1.000

Column 2

Test Identification .... : ad549-01

Reflection Coefficients for Data file .... : ad549-01.wrl

Water Depth (Feet) .... = .92
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 1.50857E+03
Maximum smoothed value = 2.06989E+04
First moment = 2.17014E+02
Second moment = 4.41037E+01
Hmo = 155.361
Tp = 15.891

*** Reflected wave energy ***
Total smoothed energy = 1.50856E+03
Maximum smoothed value = 2.06988E+04
First moment = 2.17010E+02
Second moment = 4.41026E+01
Hmo = 155.361
Reflection coefficient = 1.000

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 1.18868E+04
Maximum smoothed value = 1.80048E+05
First moment = 2.09007E+03
Second moment = 7.28494E+02
Hmo = 436.106
Tp = 8.767

*** Reflected wave energy ***
Total smoothed energy = 1.18869E+04
Maximum smoothed value = 1.80045E+05
First moment = 2.09020E+03
Second moment = 7.28578E+02
Hmo = 436.107
Reflection coefficient = 1.000

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 1.24769E+06
Maximum smoothed value = 2.32875E+07
First moment = 1.99659E+05
Second moment = 3.32214E+04
Hmo = 4467.992
Tp = 5.527

*** Reflected wave energy ***
Total smoothed energy = 1.24769E+06
Maximum smoothed value = 2.32875E+07
First moment = 1.99658E+05
Second moment = 3.32214E+04
Hmo = 4467.992
Reflection coefficient = 1.000

Column 3

Test Identification .... : ad549-01

Run Identification .... : ad549-01

Raw Data File .... : ad549-01.wrl
Date of test .... : 13-FEB-1992 13:59:57

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 3.17561E+01
Maximum smoothed value = 1.19510E+03
First moment = 2.25267E+00
Second moment = 5.17701E-01
Hmo = 22.541
Tp = 36.330

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth = 13
Total smoothed energy = 3.00869E+06
Maximum smoothed value = 1.13288E+08
First moment = 2.12536E+05
Second moment = 4.84531E+04
Uno = 6938.229
Tp = 36.330

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth = 13
Total smoothed energy = 3.24492E+07
Maximum smoothed value = 1.21815E+09
First moment = 2.29306E+06
Second moment = 5.26432E+05
Uno =
Tp = 36.330

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth = 13
Total smoothed energy = 3.49201E+08
Maximum smoothed value = 1.31159E+10
First moment = 2.46474E+07
Second moment = 5.63673E+06
Uno =
Tp = 36.330

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth = 13
Total smoothed energy = 3.75942E+09
Maximum smoothed value = 1.41187E+11
First moment = 2.63435E+08
Second moment = 6.07618E+07
Uno =
Tp = 36.330

Column 1 (left)

Test Identification .... : d549-02

Reflection Coefficients for Data file ...... : d549-02.wrl

Water Depth (Feet) .... = .92
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.13203E-05
Maximum smoothed value .... = 3.74716E-04
First moment .... = 2.69787E-06
Second moment .... = 6.86256E-07
Hmo .... = .014
Tp .... = 3.122

*** Reflected wave energy ***
Total smoothed energy .... = 4.83309E-06
Maximum smoothed value .... = 2.34098E-04
First moment .... = 1.10603E-06
Second moment .... = 2.75232E-07
Hmo .... = .009
Reflection coefficient .... = .649

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.57291E-03
Maximum smoothed value .... = 1.77404E-01
First moment .... = 7.97204E-03
Second moment .... = 4.67764E-03
Hmo .... = .500
Tp .... = 1.246

*** Reflected wave energy ***
Total smoothed energy .... = 9.17728E-04
Maximum smoothed value .... = 5.97158E-02
First moment .... = 5.80204E-04
Second moment .... = 3.79439E-04
Hmo .... = .121
Reflection coefficient .... = .243

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 8.46958E-05
Maximum smoothed value .... = 2.40468E-03
First moment .... = 1.56183E-05
Second moment .... = 2.92124E-06
Hmo .... = .037
Tp .... = 4.571

*** Reflected wave energy ***
Total smoothed energy .... = 8.67091E-05
Maximum smoothed value .... = 2.50988E-03
First moment .... = 1.60198E-05
Second moment .... = 3.00303E-06
Hmo .... = .037
Reflection coefficient .... = 1.011

Column 2 (middle)

Test Identification .... : d549-02

Reflection Coefficients for Data file ...... : d549-02.wrl

Water Depth (Feet) .... = .92
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 8.23462E-05
Maximum smoothed value .... = 4.10384E-03
First moment .... = 2.03914E-05
Second moment .... = 5.24004E-06
Hmo .... = .036
Tp .... = 3.122

*** Reflected wave energy ***
Total smoothed energy .... = 2.95145E-05
Maximum smoothed value .... = 1.92656E-03
First moment .... = 7.39338E-06
Second moment .... = 1.93883E-06
Hmo .... = .022
Reflection coefficient .... = .599

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.21564E-02
Maximum smoothed value .... = 2.35693E-01
First moment .... = 3.65909E-03
Second moment .... = 1.10537E-03
Hmo .... = .441
Tp .... = 2.612

*** Reflected wave energy ***
Total smoothed energy .... = 1.80437E-04
Maximum smoothed value .... = 2.93951E-03
First moment .... = 5.81737E-05
Second moment .... = 2.01049E-05
Hmo .... = .054
Reflection coefficient .... = .122

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.31541E-03
Maximum smoothed value .... = 4.92661E-02
First moment .... = 3.92877E-04
Second moment .... = 6.71354E-05
Hmo .... = .192
Tp .... = 5.020

*** Reflected wave energy ***
Total smoothed energy .... = 2.32008E-03
Maximum smoothed value .... = 4.93418E-02
First moment .... = 3.93635E-04
Second moment .... = 6.72516E-05
Hmo .... = .193
Reflection coefficient .... = 1.001

Column 3 (right)

Test Identification .... : d549-02

Run Identification .... : d549-02

Raw Data File .... : d549-02.wrl
Date of test .... : 13-FEB-1992 14:16:52

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.76721E-03
Maximum smoothed value .... = 1.02607E-01
First moment .... = 2.70184E-03
Second moment .... = 1.30734E-03
Hmo .... = .329
Tp .... = 2.462

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.06278E-01
Maximum smoothed value .... = 9.26212E+00
First moment .... = 2.03497E-01
Second moment .... = 8.60140E-02
Umo .... = 2.846
Tp .... = 2.612

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.73397E-02
Maximum smoothed value .... = 2.21642E-01
First moment .... = 6.5037BE-01
Second moment .... = 3.24668E-03
Umo .... = .527
Tp .... = 2.612

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.64328E-01
Maximum smoothed value .... = 2.90091E+00
First moment .... = 6.82294E-02
Second moment .... = 3.07139E-02
Umo .... = 1.621
Tp .... = 2.560

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 4.45591E-03
Maximum smoothed value .... = 4.19240E-02
First moment .... = 1.92434E-03
Second moment .... = 1.14746E-03
Umo .... = .267
Tp .... = 2.639

Test Identification .... : b126-01

Reflection Coefficients for Data file .... : b126-01.wrl

Water Depth (Feet) .... - 3.58
Data Channels used to compute Coefficients ... - 1   2   3
Distance between channels in feet .... - 7.00 2.50

*** Smoothed spectral densities for DL - 7.0 Ft. ***
=== Incident wave energy ===
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 5.07969E-02
Maximum smoothed value .... - 1.78511E+00
First moment .... - 6.46062E-03
Second moment .... - 9.72411E-04
Hmo .... - .901
Tp .... - 5.389

=== Reflected wave energy ===
Total smoothed energy .... - 6.84481E-04
Maximum smoothed value .... - 2.44929E-02
First moment .... - 8.57162E-05
Second moment .... - 1.30892E-03
Hmo .... - .105
Reflection coefficient .... - .116

*** Smoothed spectral densities for DL - 2.5 Ft. ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 3.76178E-03
Maximum smoothed value .... - 1.88121E-01
First moment .... - 1.12602E-03
Second moment .... - 2.01895E-04
Hmo .... - .304
Tp .... - 2.599

=== Reflected wave energy ===
Total smoothed energy .... - 1.51970E-04
Maximum smoothed value .... - 4.15700E-03
First moment .... - 1.74615E-05
Hmo .... - .049
Reflection coefficient .... - .162

*** Smoothed spectral densities for DL - 9.5 Ft. ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 5.29336E-02
Maximum smoothed value .... - 1.82695E+00
First moment .... - 7.93006E-03
Second moment .... - 1.36903E-03
Hmo .... - .920
Tp .... - 5.389

=== Reflected wave energy ===
Total smoothed energy .... - 5.88908E-04
Maximum smoothed value .... - 2.10006E-02
First moment .... - 8.33025E-05
Second moment .... - 1.33167E-05
Hmo .... - .097
Reflection coefficient .... - .105

Test Identification .... : b126-01

Reflection Coefficients for Data file .... : b126-01.wrl

Water Depth (Feet) .... - 3.58
Data Channels used to compute Coefficients ... - 5   6   7
Distance between channels in feet .... - 7.00 3.00

*** Smoothed spectral densities for DL - 7.0 Ft. ***
=== Incident wave energy ===
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 4.42238E-02
Maximum smoothed value .... - 1.20069E+00
First moment .... - 7.19466E-03
Second moment .... - 1.48690E-03
Hmo .... - .841
Tp .... - 5.389

=== Reflected wave energy ===
Total smoothed energy .... - 6.17318E-04
Maximum smoothed value .... - 1.64656E-02
First moment .... - 1.05134E-04
Second moment .... - 2.29063E-05
Hmo .... - .099
Reflection coefficient .... - .118

*** Smoothed spectral densities for DL - 3.0 Ft. ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 2.89404E-02
Maximum smoothed value .... - 1.19746E+00
First moment .... - 3.24299E-03
Second moment .... - 7.17816E-04
Hmo .... - .680
Tp .... - 5.333

=== Reflected wave energy ===
Total smoothed energy .... - 4.13430E-04
Maximum smoothed value .... - 2.00313E-02
First moment .... - 5.12747E-05
Second moment .... - 1.87719E-05
Hmo .... - .081
Reflection coefficient .... - .120

*** Smoothed spectral densities for DL - 10.0 Ft. ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 4.58992E-02
Maximum smoothed value .... - 1.24693E+00
First moment .... - 8.68095E-03
Second moment .... - 1.97951E-03
Hmo .... - .857
Tp .... - 5.389

=== Reflected wave energy ===
Total smoothed energy .... - 8.52051E-04
Maximum smoothed value .... - 2.01094E-02
First moment .... - 1.76322E-04
Second moment .... - 4.36592E-05
Hmo .... - .117
Reflection coefficient .... - .136

Test Identification .... : b126-01

Run Identification .... : b126-01

Raw Data File .... : b126-01.wrl
Date of test .... : 19-FEB-1992   09:18:06

===== Wave Gauge 4 Summary =====
=== Total Wave Energy ===
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 5.52248E-02
Maximum smoothed value .... - 1.79561E+00
First moment .... - 1.21294E-02
Second moment .... - 3.09947E-03
Hmo .... - .940
Tp .... - 5.389

=== Current Meter Summary Seaward Gauge ===
=== Horizontal Current Energy Channel 8 ===
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 5.23240E-01
Maximum smoothed value .... - 1.82844E+01
First moment .... - 1.05467E-01
Second moment .... - 2.37703E-02
Umo .... - 2.893
Tp .... - 5.389

=== Vertical Current Energy Channel 9 ===
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 3.89987E-03
Maximum smoothed value .... - 7.74526E-02
First moment .... - 9.77478E-04
Second moment .... - 4.24072E-04
Umo .... - .249
Tp .... - 3.447

=== Current Meter Summary Leeward Gauge ===
=== Horizontal Current Energy Channel 10 ===
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 3.68950E-01
Maximum smoothed value .... - 1.23994E+01
First moment .... - 7.81423E-02
Second moment .... - 1.86930E-02
Umo .... - 2.429
Tp .... - 5.389

=== Vertical Current Energy Channel 11 ===
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 3.60311E-03
Maximum smoothed value .... - 5.15760E-02
First moment .... - 9.38607E-04
Second moment .... - 4.11308E-04
Umo .... - .240
Tp .... - 5.503

Column 1

Test Identification .... : b126-02

Reflection Coefficients for Data file .... : b126-02.wrl

Water Depth (Feet) .... = -3.58
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.03942E-01
Maximum smoothed value .... = 3.36708E+00
First moment .... = 1.67608E-02
Second moment .... = 2.59470E-03
Hmo .... = 1.290
Tp .... = 5.389

*** Reflected wave energy ***
Total smoothed energy .... = 1.41031E-03
Maximum smoothed value .... = 4.47231E-02
First moment .... = 1.09096E-04
Second moment .... = 3.01954E-05
Hmo .... = .159
Reflection coefficient .... = .116

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.36424E-02
Maximum smoothed value .... = 6.54998E-01
First moment .... = 5.66098E-03
Second moment .... = 1.76330E-03
Hmo .... = .618
Tp .... = 2.612

*** Reflected wave energy ***
Total smoothed energy .... = 7.54768E-04
Maximum smoothed value .... = 1.42832E-02
First moment .... = 3.89495E-04
Second moment .... = 1.77112E-04
Hmo .... = .110
Reflection coefficient .... = .178

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.09690E-01
Maximum smoothed value .... = 3.41520E+00
First moment .... = 1.84238E-02
Second moment .... = 3.46431E-03
Hmo .... = 1.325
Tp .... = 5.389

*** Reflected wave energy ***
Total smoothed energy .... = 1.10991E-03
Maximum smoothed value .... = 3.46449E-02
First moment .... = 1.60098E-04
Second moment .... = 2.16551E-05
Hmo .... = .133
Reflection coefficient .... = .100

Column 2

Test Identification .... : b126-02

Reflection Coefficients for Data file .... : b126-02.wrl

Water Depth (Feet) .... = -3.58
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 8.90396E-02
Maximum smoothed value .... = 1.82007E+00
First moment .... = 1.76801E-02
Second moment .... = 4.29490E-03
Hmo .... = 1.194
Tp .... = 5.389

*** Reflected wave energy ***
Total smoothed energy .... = 2.03095E-03
Maximum smoothed value .... = 5.26232E-02
First moment .... = 3.51072E-04
Second moment .... = 7.73568E-05
Hmo .... = .180
Reflection coefficient .... = .151

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.03447E-02
Maximum smoothed value .... = 1.74722E+00
First moment .... = 1.14411E-02
Second moment .... = 2.87757E-03
Hmo .... = 1.061
Tp .... = 5.333

*** Reflected wave energy ***
Total smoothed energy .... = 1.10037E-03
Maximum smoothed value .... = 4.32095E-02
First moment .... = 2.02900E-04
Second moment .... = 8.49345E-05
Hmo .... = .133
Reflection coefficient .... = .125

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.49119E-02
Maximum smoothed value .... = 1.86645E+00
First moment .... = 2.14192E-02
Second moment .... = 5.66536E-03
Hmo .... = 1.233
Tp .... = 5.389

*** Reflected wave energy ***
Total smoothed energy .... = 2.74708E-03
Maximum smoothed value .... = 5.98932E-02
First moment .... = 5.90333E-04
Second moment .... = 1.50817E-04
Hmo .... = .210
Reflection coefficient .... = .170

Column 3

Test Identification .... : b126-02

Run Identification .... : b126-02

Raw Data File .... : b126-02.wrl
Date of test .... : 19-FEB-1992   09:32:06

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.23249E-01
Maximum smoothed value .... = 3.39075E+00
First moment .... = 3.17706E-02
Second moment .... = 1.03470E-02
Hmo .... = 1.404
Tp .... = 5.333

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.53719E-01
Maximum smoothed value .... = 2.99910E+01
First moment .... = 2.16112E-01
Second moment .... = 5.68487E-02
Umo .... = 3.906
Tp .... = 5.333

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.41914E-03
Maximum smoothed value .... = 1.06948E-01
First moment .... = 2.80604E-03
Second moment .... = 1.33320E-03
Umo .... = .38
Tp .... = 5.389

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.28738E-01
Maximum smoothed value .... = 2.06907E+01
First moment .... = 1.74920E-01
Second moment .... = 4.99726E-02
Umo .... = 3.415
Tp .... = 5.333

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.47150E-03
Maximum smoothed value .... = 5.31171E-02
First moment .... = 1.51274E-02
Second moment .... = 7.34353E-04
Umo .... = .296
Tp .... = 5.120

Column 1 (left):

Test Identification ...... : b126-03

Reflection Coefficients for Data file ...... : b126-03.wrl

Water Depth (Feet) ...... = 3.58
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet ...... = 7.00 3.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth 13
Total smoothed energy 2.61598E-01
Maximum smoothed value ...... 5.42241E+00
First moment 3.29991E-02
Second moment 6.84469E-03
Hmo 1.797
Tp 5.369

*** Reflected wave energy ***
Total smoothed energy 2.48103E-03
Maximum smoothed value 6.17409E-02
First moment 4.69468E-04
Second moment 1.16102E-04
Hmo ...... .199
Reflection coefficient ...... .111   <

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth 13
Total smoothed energy 1.19532E-01
Maximum smoothed value ...... 1.77115E+00
First moment 4.03162E-02
Second moment 2.15254E-02
Hmo 1.383
Tp 2.612

*** Reflected wave energy ***
Total smoothed energy 1.37699E-02
Maximum smoothed value 4.65981E-01
First moment 8.09948E-03
Second moment 1.01404E-02
Hmo ...... .470
Reflection coefficient ...... .340   <

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth 13
Total smoothed energy 2.22241E-01
Maximum smoothed value ...... 5.44652E+00
First moment 4.31476E-02
Second moment 1.01406E-02
Hmo 1.884
Tp 5.369

*** Reflected wave energy ***
Total smoothed energy 4.55146E-03
Maximum smoothed value 1.31551E-01
First moment 1.24708E-03
Second moment 3.78355E-04
Hmo ...... .270
Reflection coefficient ...... .143   <

Column 2 (middle):

Test Identification ...... : b126-03

Reflection Coefficients for Data file ...... : b126-03.wrl

Water Depth (Feet) ...... = 3.58
Data Channels used to compute Coefficient ... = 5 6 7
Distance between channels in feet ...... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth 13
Total smoothed energy 1.43961E-01
Maximum smoothed value ...... 3.63521E+00
First moment 3.31122E-02
Second moment 8.97068E-03
Hmo 1.518
Tp 2.626

*** Reflected wave energy ***
Total smoothed energy 3.23029E-03
Maximum smoothed value 1.29418E-01
First moment 9.29339E-04
Second moment 2.13222E-04
Hmo ...... .289
Reflection coefficient ...... .191   <

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth 13
Total smoothed energy 1.31188E-01
Maximum smoothed value ...... 3.16905E+00
First moment 2.89515E-02
Second moment 9.14299E-03
Hmo 1.449
Tp 2.626

*** Reflected wave energy ***
Total smoothed energy 3.77166E-03
Maximum smoothed value 7.37065E-02
First moment 1.37092E-03
Second moment 7.02377E-04
Hmo ...... .246
Reflection coefficient ...... .170   <

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth 13
Total smoothed energy 1.65322E-01
Maximum smoothed value ...... 4.38945E+00
First moment 4.30921E-02
Second moment 1.25044E-02
Hmo 1.626
Tp 2.626

*** Reflected wave energy ***
Total smoothed energy 7.98078E-03
Maximum smoothed value 1.60425E-01
First moment 1.86618E-03
Second moment 5.07323E-04
Hmo ...... .357
Reflection coefficient ...... .220   <

Column 3 (right):

Test Identification ...... : b126-03

Run Identification ...... : b126-03

Raw Data File ...... : b126-03.wrl
Date of test ...... : 19-FEB-1992 09:47:06

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth 13
Total smoothed energy 2.81321E-01
Maximum smoothed value ...... 4.84439E+00
First moment 9.83497E-02
Second moment 4.66688E-02
Hmo 2.122
Tp 5.333

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth 13
Total smoothed energy ...... 1.57001E+00
Maximum smoothed value 3.52462E-01
First moment 4.49002E-01
Second moment 1.56552E-01
Umo ...... .5012
Tp 5.333

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth 13
Total smoothed energy 1.81335E-02
Maximum smoothed value 2.15937E-01
First moment 6.01521E-03
Second moment 2.86535E-03
Umo ...... .539
Tp 5.369

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth 13
Total smoothed energy ...... 1.48127E+00
Maximum smoothed value ...... 3.16668E+01
First moment 4.34301E-01
Second moment 1.57106E-01
Umo ...... .468
Tp 5.333

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth 13
Total smoothed energy 1.12530E-02
Maximum smoothed value 9.85418E-02
First moment 3.45612E-03
Second moment 1.69936E-03
Umo ...... .424
Tp 5.369

Test Identification .... : b126-04
Run Identification .... : b126-04

Raw Data File .... : b126-04.wr1
Date of test .... : 19-FEB-1992 10:05:50

==== Wave Gauge 4 Summary ====
=== Total Wave Energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.12467E-01
Maximum smoothed value .... = 4.93392E+00
First moment .... = 1.12831E-01
Second moment .... = 5.60137E-02
Hmo .... = 2.236
Tp .... = 5.333

==== Current Meter Summary Seaward Gauge ====
=== Horizontal Current Energy Channel 8 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.66760E+00
Maximum smoothed value .... = 3.58356E+01
First moment .... = 4.89213E-01
Second moment .... = 1.79078E-01
Umo .... = 5.165
Tp .... = 5.333

=== Vertical Current Energy Channel 9 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.06198E-02
Maximum smoothed value .... = 2.31567E-01
First moment .... = 7.21964E-03
Second moment .... = 3.96909E-03
Umo .... = .574
Tp .... = 2.681

==== Current Meter Summary Leeward Gauge ====
=== Horizontal Current Energy Channel 10 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.54798E+00
Maximum smoothed value .... = 3.24763E+01
First moment .... = 4.61701E-01
Second moment .... = 1.71483E-01
Umo .... = 4.977
Tp .... = 5.333

=== Vertical Current Energy Channel 11 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.04821E-02
Maximum smoothed value .... = 9.39297E-02
First moment .... = 3.32021E-03
Second moment .... = 1.63979E-03
Umo .... = .410
Tp .... = 5.447

Test Identification .... : b126-04
Reflection Coefficients for Data file .... : b126-04.wr1

Water Depth (Feet) .... = 3.58
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

=== Smoothed spectral densities for DL = 7.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.18723E-01
Maximum smoothed value .... = 2.79760E+00
First moment .... = 2.65236E-02
Second moment .... = 6.93262E-03
Hmo .... = 1.378
Tp .... = 2.599

=== Reflected wave energy ===
Total smoothed energy .... = 5.79074E-03
Maximum smoothed value .... = 1.43321E-01
First moment .... = 1.01066E-03
Second moment .... = 2.29545E-04
Hmo .... = .303
Reflection coefficient .... = .220

=== Smoothed spectral densities for DL = 3.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.99314E-02
Maximum smoothed value .... = 2.31684E+00
First moment .... = 2.19613E-02
Second moment .... = 7.16354E-03
Hmo .... = 1.264
Tp .... = 2.599

=== Reflected wave energy ===
Total smoothed energy .... = 4.21698E-03
Maximum smoothed value .... = 8.00437E-02
First moment .... = 1.53719E-03
Second moment .... = 7.82255E-04
Hmo .... = .260
Reflection coefficient .... = .205

=== Smoothed spectral densities for DL = 10.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.41018E-01
Maximum smoothed value .... = 3.60302E+00
First moment .... = 3.60392E-02
Second moment .... = 1.03371E-02
Hmo .... = 1.502
Tp .... = 2.599

=== Reflected wave energy ===
Total smoothed energy .... = 9.04335E-03
Maximum smoothed value .... = 1.82300E-01
First moment .... = 2.11519E-03
Second moment .... = 5.74704E-04
Hmo .... = .380
Reflection coefficient .... = .253

Test Identification .... : b126-04
Reflection Coefficients for Data file .... : b126-04.wr1

Water Depth (Feet) .... = 3.58
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

=== Smoothed spectral densities for DL = 7.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.17435E-01
Maximum smoothed value .... = 5.92370E+00
First moment .... = 3.69048E-02
Second moment .... = 7.61923E-03
Hmo .... = 1.865
Tp .... = 5.389

=== Reflected wave energy ===
Total smoothed energy .... = 2.91748E-03
Maximum smoothed value .... = 6.13401E-02
First moment .... = 5.83098E-04
Second moment .... = 1.50018E-04
Hmo .... = .216
Reflection coefficient .... = .116

=== Smoothed spectral densities for DL = 2.5 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.46378E-01
Maximum smoothed value .... = 1.94129E+00
First moment .... = 3.74512E-02
Second moment .... = 2.90788E-03
Hmo .... = 1.531
Tp .... = 2.612

=== Reflected wave energy ===
Total smoothed energy .... = 1.99245E-02
Maximum smoothed value .... = 4.00305E-01
First moment .... = 1.28461E-03
Second moment .... = 4.52261E-03
Hmo .... = .565
Reflection coefficient .... = .349

=== Smoothed spectral densities for DL = 9.5 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.42769E-01
Maximum smoothed value .... = 5.86325E+00
First moment .... = 4.00258E-02
Second moment .... = 1.14983E-02
Hmo .... = 1.971
Tp .... = 5.389

=== Reflected wave energy ===
Total smoothed energy .... = 5.74550E-03
Maximum smoothed value .... = 1.74726E-01
First moment .... = 1.63298E-03
Second moment .... = 4.97134E-04
Hmo .... = .304
Reflection coefficient .... = .154

Left panel

Test Identification .... : b126-05

Reflection Coefficients for Data file .... : b126-05.wrl

Water Depth (Feet) .... = 3.58
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

=== Smoothed spectral densities for DL = 7.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.81795E-01
Maximum smoothed value .... = 5.57908E+00
First moment .... = 3.31241E-02
Second moment .... = 4.92008E-03
Hmo .... = 1.797
Tp .... = 5.369

=== Reflected wave energy ===
Total smoothed energy .... = 2.36618E-03
Maximum smoothed value .... = 5.39312E-02
First moment .... = 4.50398E-04
Second moment .... = 1.17469E-04
Hmo .... = .195
Reflection coefficient .... = .108

=== Smoothed spectral densities for DL = 2.5 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.18351E-01
Maximum smoothed value .... = 1.79308E+00
First moment .... = 4.22408E-02
Second moment .... = 1.95733E-02
Hmo .... = 1.379
Tp .... = 2.612

=== Reflected wave energy ===
Total smoothed energy .... = 1.13948E-02
Maximum smoothed value .... = 3.18079E-01
First moment .... = 7.17068E-03
Second moment .... = 4.49452E-03
Hmo .... = .429
Reflection coefficient .... = .311

=== Smoothed spectral densities for DL = 9.5 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.22397E-01
Maximum smoothed value .... = 5.60140E+00
First moment .... = 4.33403E-02
Second moment .... = 1.62317E-02
Hmo .... = 1.604
Tp .... = 5.369

=== Reflected wave energy ===
Total smoothed energy .... = 4.64948E-03
Maximum smoothed value .... = 1.34008E-01
First moment .... = 1.30118E-03
Second moment .... = 3.04435E-04
Hmo .... = .273
Reflection coefficient .... = .145

Middle panel

Test Identification .... : b126-05

Reflection Coefficients for Data file .... : b126-05.wrl

Water Depth (Feet) .... = 3.58
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

=== Smoothed spectral densities for DL = 7.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.71887E-01
Maximum smoothed value .... = 4.62685E+00
First moment .... = 4.11385E-02
Second moment .... = 1.11499E-02
Hmo .... = 1.658
Tp .... = 2.639

=== Reflected wave energy ===
Total smoothed energy .... = 5.53396E-03
Maximum smoothed value .... = 1.40523E-01
First moment .... = 9.04019E-04
Second moment .... = 2.15527E-04
Hmo .... = .298
Reflection coefficient .... = .179

=== Smoothed spectral densities for DL = 3.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.66388E-01
Maximum smoothed value .... = 4.10110E+00
First moment .... = 3.90627E-02
Second moment .... = 1.25604E-02
Hmo .... = 1.641
Tp .... = 2.639

=== Reflected wave energy ===
Total smoothed energy .... = 4.53718E-03
Maximum smoothed value .... = 9.11341E-02
First moment .... = 1.76824E-03
Second moment .... = 9.29369E-04
Hmo .... = .269
Reflection coefficient .... = .164

=== Smoothed spectral densities for DL = 10.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.95531E-01
Maximum smoothed value .... = 5.48738E+00
First moment .... = 5.23189E-02
Second moment .... = 1.53908E-02
Hmo .... = 1.769
Tp .... = 2.639

=== Reflected wave energy ===
Total smoothed energy .... = 8.39935E-03
Maximum smoothed value .... = 1.65969E-01
First moment .... = 1.95021E-03
Second moment .... = 5.26983E-04
Hmo .... = .367
Reflection coefficient .... = .207

Right panel

Test Identification .... : b126-05

Run Identification .... : b126-05

Raw Data File .... : b126-05.wrl
Date of test .... : 19-FEB-1992 10:34:26

=== Wave Gauge 4 Summary ===
=== Total Wave Energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.17072E-01
Maximum smoothed value .... = 4.8404E+00
First moment .... = 1.00930E-01
Second moment .... = 4.75001E-02
Hmo .... = 2.143
Tp .... = 5.333

=== Current Meter Summary Seaward Gauge ===
=== Horizontal Current Energy Channel 8 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.6707E+00
Maximum smoothed value .... = 3.56690E+01
First moment .... = 4.60593E-01
Second moment .... = 1.62409E-01
Uno .... = 5.071
Tp .... = 3.333

=== Vertical Current Energy Channel 9 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.76902E-02
Maximum smoothed value .... = 2.21129E-01
First moment .... = 6.09011E-03
Second moment .... = 2.96811E-03
Uno .... = .535
Tp .... = 2.738

=== Current Meter Summary Leeward Gauge ===
=== Horizontal Current Energy Channel 10 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.54866E+00
Maximum smoothed value .... = 3.24231E+01
First moment .... = 4.58390E-01
Second moment .... = 1.66934E-01
Uno .... = 4.978
Tp .... = 5.369

=== Vertical Current Energy Channel 11 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.31803E-03
Maximum smoothed value .... = 9.00943E-02
First moment .... = 2.99016E-03
Second moment .... = 1.51211E-03
Uno .... = .346
Tp .... = 2.709

Test Identification .... : b126-06

Run Identification .... : b126-06

Raw Data File .... : b126-06.wrl
Date of test .... : 19-FEB-1992   11:15:47

~~~ Wave Gauge 4 Summary ~~~
~~~ Total Wave Energy ~~~

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.4019E-01
Maximum smoothed value .... = 1.2531E+00
First moment .... = 4.3229E-02
Second moment .... = 1.8161E-02
Hmo .... = 1.498
Tp .... = 5.565

~~~ Current Meter Summary Seaward Gauge ~~~
~~~ Horizontal Current Energy Channel 8 ~~~

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.0826E+00
Maximum smoothed value .... = 1.2475E+01
First moment .... = 2.5900E-01
Second moment .... = 7.9994E-02
Umo .... = 4.162
Tp .... = 5.689

~~~ Vertical Current Energy Channel 9 ~~~

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.7018E-02
Maximum smoothed value .... = 9.3177E-02
First moment .... = 4.3319E-03
Second moment .... = 1.9904E-03
Umo .... = .522
Tp .... = 5.689

~~~ Current Meter Summary Leeward Gauge ~~~
~~~ Horizontal Current Energy Channel 10 ~~~

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.4782E-01
Maximum smoothed value .... = 1.0120E+01
First moment .... = 2.3670E-01
Second moment .... = 7.1507E-02
Umo .... = 3.894
Tp .... = 5.565

~~~ Vertical Current Energy Channel 11 ~~~

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.2584E-02
Maximum smoothed value .... = 6.4569E-02
First moment .... = 3.2471E-03
Second moment .... = 1.6664E-03
Umo .... = .454
Tp .... = 36.571

Test Identification .... : b126-06

Reflection Coefficients for Data file .... : b126-06.wrl

Water Depth (Feet) .... = 3.58
Data Channels used to compute Coefficients ... = 5   6   7
Distance between channels in feet .... = 7.00 3.00

~~~ Smoothed spectral densities for DL = 7.0 Ft. ~~~
~~~ Incident wave energy ~~~

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.0037E-01
Maximum smoothed value .... = 6.8129E-01
First moment .... = 2.3736E-02
Second moment .... = 7.1369E-03
Hmo .... = 1.267
Tp .... = 5.565

~~~ Reflected wave energy ~~~

Total smoothed energy .... = 3.9470E-03
Maximum smoothed value .... = 4.8942E-02
First moment .... = 1.2301E-03
Second moment .... = 4.5681E-04
Hmo .... = .251
Reflection coefficient .... = .198

~~~ Smoothed spectral densities for DL = 3.0 Ft. ~~~
~~~ Incident wave energy ~~~

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.9236E-02
Maximum smoothed value .... = 4.4394E-01
First moment .... = 1.7907E-02
Second moment .... = 6.2624E-03
Hmo .... = 1.126
Tp .... = 5.333

~~~ Reflected wave energy ~~~

Total smoothed energy .... = 3.1134E-03
Maximum smoothed value .... = 4.0303E-02
First moment .... = 1.4844E-03
Second moment .... = 8.4767E-04
Hmo .... = .224
Reflection coefficient .... = .199

~~~ Smoothed spectral densities for DL = 10.0 Ft. ~~~
~~~ Incident wave energy ~~~

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 8.3160E-02
Maximum smoothed value .... = 7.0133E-01
First moment .... = 1.7354E-02
Second moment .... = 4.4211E-03
Hmo .... = 1.153
Tp .... = 5.565

~~~ Reflected wave energy ~~~

Total smoothed energy .... = 3.4364E-03
Maximum smoothed value .... = 1.1067E-01
First moment .... = 8.9546E-04
Second moment .... = 2.7224E-04
Hmo .... = .234
Reflection coefficient .... = .203

Test Identification .... : b126-06

Reflection Coefficients for Data file .... : b126-06.wrl

Water Depth (Feet) .... = 3.58
Data Channels used to compute Coefficients ... = 1   2   3
Distance between channels in feet .... = 7.00 2.50

~~~ Smoothed spectral densities for DL = 7.0 Ft. ~~~
~~~ Incident wave energy ~~~

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.3729E-01
Maximum smoothed value .... = 1.3372E+00
First moment .... = 3.5344E-02
Second moment .... = 6.5711E-03
Hmo .... = 1.482
Tp .... = 5.565

~~~ Reflected wave energy ~~~

Total smoothed energy .... = 4.7615E-03
Maximum smoothed value .... = 7.9475E-02
First moment .... = 1.6148E-03
Second moment .... = 6.2437E-04
Hmo .... = .277
Reflection coefficient .... = .187

~~~ Smoothed spectral densities for DL = 2.5 Ft. ~~~
~~~ Incident wave energy ~~~

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.9984E-02
Maximum smoothed value .... = 5.4235E-01
First moment .... = 1.7004E-02
Second moment .... = 7.0143E-03
Hmo .... = 1.058
Tp .... = 4.531

~~~ Reflected wave energy ~~~

Total smoothed energy .... = 3.9970E-03
Maximum smoothed value .... = 5.7871E-02
First moment .... = 2.1202E-03
Second moment .... = 1.3129E-03
Hmo .... = .253
Reflection coefficient .... = .239

~~~ Smoothed spectral densities for DL = 9.5 Ft. ~~~
~~~ Incident wave energy ~~~

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.2706E-01
Maximum smoothed value .... = 1.5557E+00
First moment .... = 2.2561E-02
Second moment .... = 4.8151E-03
Hmo .... = 1.426
Tp .... = 5.565

~~~ Reflected wave energy ~~~

Total smoothed energy .... = 3.3447E-03
Maximum smoothed value .... = 5.6472E-02
First moment .... = 8.1167E-04
Second moment .... = 2.6920E-04
Hmo .... = .231
Reflection coefficient .... = .162

Test Identification .... : b126-07

Reflection Coefficients for Data file .... : b126-07.wrl

Water Depth (Feet) .... = 3.58
Data Channels used to compute Coefficients ... = 1   2   3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.74571E-01
Maximum smoothed value .... = 6.18541E+00
First moment .... = 5.15423E-02
Second moment .... = 1.44753E-02
Hmo .... = 2.096
Tp .... = 6.169

*** Reflected wave energy ***
Total smoothed energy .... = 1.12990E-02
Maximum smoothed value .... = 3.13742E-01
First moment .... = 3.63916E-03
Second moment .... = 1.39399E-03
Hmo .... = .422
Reflection coefficient .... = .200

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.32955E-01
Maximum smoothed value .... = 1.90222E+00
First moment .... = 4.02643E-02
Second moment .... = 1.61828E-02
Hmo .... = 1.459
Tp .... = 3.180

*** Reflected wave energy ***
Total smoothed energy .... = 8.24105E-03
Maximum smoothed value .... = 1.26423E-01
First moment .... = 1.84964E-03
Second moment .... =
Hmo .... = .363
Reflection coefficient .... = .249

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.23819E-01
Maximum smoothed value .... = 6.23185E+00
First moment .... = 3.35176E-02
Second moment .... = 6.21700E-03
Hmo .... = 1.892
Tp .... = 6.169

*** Reflected wave energy ***
Total smoothed energy .... = 4.15175E-03
Maximum smoothed value .... = 1.01971E-01
First moment .... = 6.74277E-04
Second moment .... = 1.38164E-04
Hmo .... = .238
Reflection coefficient .... = .136

Test Identification .... : b126-07

Reflection Coefficients for Data file .... : b126-07.wrl

Water Depth (Feet) .... = 3.58
Data Channels used to compute Coefficients ... = 5   6   7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.11994E-01
Maximum smoothed value .... = 1.73386E+00
First moment .... = 2.47511E-02
Second moment .... = 7.29233E-03
Hmo .... = 1.339
Tp .... = 6.244

*** Reflected wave energy ***
Total smoothed energy .... = 3.55348E-03
Maximum smoothed value .... = 9.69716E-02
First moment .... = 1.20399E-03
Second moment .... = 4.68703E-04
Hmo .... = .238
Reflection coefficient .... = .178

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.05644E-02
Maximum smoothed value .... = 1.57679E+00
First moment .... = 1.93412E-02
Second moment .... = 7.44720E-03
Hmo .... = 1.063
Tp .... = 3.160

*** Reflected wave energy ***
Total smoothed energy .... = 5.08755E-03
Maximum smoothed value .... = 6.46299E-02
First moment .... = 2.24834E-03
Second moment .... = 1.22038E-03
Hmo .... = .285
Reflection coefficient .... = .269

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.64175E-02
Maximum smoothed value .... = 1.97179E+00
First moment .... = 1.85612E-02
Second moment .... = 4.20640E-03
Hmo .... = 1.242
Tp .... = 3.160

*** Reflected wave energy ***
Total smoothed energy .... = 1.52456E-03
Maximum smoothed value .... = 2.66143E-02
First moment .... = 2.92612E-04
Second moment .... = 6.7177E-05
Hmo .... = .156
Reflection coefficient .... = .126

Test Identification .... : b126-07

Run Identification .... : b126-07

Raw Data File .... : b126-07.wrl
Date of test .... : 19-FEB-1992 11:58:11

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.41460E-01
Maximum smoothed value .... = 4.27156E+00
First moment .... = 7.89151E-02
Second moment .... = 3.69248E-02
Hmo .... = .966
Tp .... = 6.169

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.04274E+00
Maximum smoothed value .... = 5.27442E+01
First moment .... = 4.93642E-01
Second moment .... = 1.8262E-01
Umo .... = 5.717
Tp .... = 6.169

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.50343E-02
Maximum smoothed value .... = 4.13974E-01
First moment .... = 7.05108E-03
Second moment .... = 2.98519E-03
Umo .... = .633
Tp .... = 6.169

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.37314E+00
Maximum smoothed value .... = 3.21947E+01
First moment .... = 3.65612E-01
Second moment .... = 1.31183E-01
Umo .... = 4.687
Tp .... = 6.169

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.09446E-02
Maximum smoothed value .... = 9.09700E-02
First moment .... = 3.57991E-03
Second moment .... = 1.88976E-03
Umo .... = .418
Tp .... = 2.040

Column 1 (left)

Test Identification .... : b126-08

Reflection Coefficients for Data file .... : b126-08.wrl

Water Depth (Feet) .... = 3.58
Data Channels used to compute Coefficients ... = 1   2   3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.0609E-01
Maximum smoothed value .... = 6.5811E+00
First moment .... = 6.0144E-02
Second moment .... = 1.5969E-02
Umo .... = 2.149
Tp .... = 4.491

*** Reflected wave energy ***
Total smoothed energy .... = 1.1402E-02
Maximum smoothed value .... = 4.00127E-01
First moment .... = 3.9740E-03
Second moment .... = 1.4394E-03
Umo .... = .427
Reflection coefficient .... = .199

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.1136E-01
Maximum smoothed value .... = 5.4045E+00
First moment .... = 4.6129E-02
Second moment .... = 2.1012E-02
Umo .... = 1.840
Tp .... = 4.491

*** Reflected wave energy ***
Total smoothed energy .... = 1.1454E-02
Maximum smoothed value .... = 6.7435E-03
First moment .... = 4.3167E-03
Second moment .... = .428
Reflection coefficient .... = .233

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.7081E-01
Maximum smoothed value .... = 6.5564E+00
First moment .... = 2.0360E-02
Second moment .... = 4.7660E-03
Umo .... = 1.653
Tp .... = 4.491

*** Reflected wave energy ***
Total smoothed energy .... = 1.2465E-03
Maximum smoothed value .... = 3.4035E-02
First moment .... = 2.5000E-04
Second moment .... = 6.1925E-05
Umo .... = .141
Reflection coefficient .... = .083

Column 2 (middle)

Test Identification .... : b126-08

Reflection Coefficients for Data file .... : b126-08.wrl

Water Depth (Feet) .... = 3.58
Data Channels used to compute Coefficients ... = 5   6   7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.5004E-01
Maximum smoothed value .... = 3.1757E+00
First moment .... = 4.0144E-02
Second moment .... = 1.25805E-02
Umo .... = 1.550
Tp .... = 2.256

*** Reflected wave energy ***
Total smoothed energy .... = 9.6707E-03
Maximum smoothed value .... = 3.4247E-01
First moment .... = 3.4470E-03
Second moment .... = 1.2576E-03
Umo .... = .394
Reflection coefficient .... = .254

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.1802E-01
Maximum smoothed value .... = 2.6390E+00
First moment .... = 1.8398E-02
Second moment .... = 5.2513E-03
Umo .... = 1.374
Tp .... = 4.491

*** Reflected wave energy ***
Total smoothed energy .... = 3.1961E-03
Maximum smoothed value .... = 4.41327E-02
First moment .... = 3.73547E-04
Second moment .... = .226
Reflection coefficient .... = .165

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.6154E-02
Maximum smoothed value .... = 2.89026E+00
First moment .... = 1.3026E-02
Second moment .... = 2.26006E-03
Umo .... = 1.104
Tp .... = 4.491

*** Reflected wave energy ***
Total smoothed energy .... = 5.2081E-04
Maximum smoothed value .... = 1.01182E-02
First moment .... = 1.23049E-04
Second moment .... = 3.51934E-05
Umo .... = .091
Reflection coefficient .... = .083

Column 3 (right)

Test Identification .... : b126-08

Run Identification .... : b126-08

Raw Data File .... : b126-08.wrl
Date of test .... : 19-FEB-1992 13:38:22

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.1999E-01
Maximum smoothed value .... = 4.0391E+00
First moment .... = 6.3832E-02
Second moment .... = 2.9294E-02
Umo .... = 1.722
Tp .... = 4.491

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.7035E+00
Maximum smoothed value .... = 3.9404E+01
First moment .... = 5.4376E-01
Second moment .... = 2.0671E-01
Umo .... = 5.221
Tp .... = 4.491

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.2164E-01
Maximum smoothed value .... = 9.9217E-01
First moment .... = 2.7531E-02
Second moment .... = 1.5369E-02
Umo .... = 1.395
Tp .... = 73.143

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.33572E+00
Maximum smoothed value .... = 3.2955SE+01
First moment .... = 4.09160E-01
Second moment .... = 1.4939E-01
Umo .... = 4.623
Tp .... = 4.491

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.33175E-02
Maximum smoothed value .... = 8.77354E-02
First moment .... = 4.6375E-03
Second moment .... = 2.6247E-03
Umo .... = .462
Tp .... = 2.317

Test identification .... : b126-09

Reflection Coefficients for Data file ...... : b126-09.wrl

Water Depth (Feet) .... = 3.58
Data Channels used to compute Coefficients .... = 1 2 3
Distance between channels in feet ...... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.80323E-01
Maximum smoothed value .... = 7.70247E+00
First moment .... = 1.18576E-01
Second moment .... = 4.24623E-02
Hmo .... = 2.493
Tp .... = 1.947

*** Reflected wave energy ***
Total smoothed energy .... = 2.37110E-02
Maximum smoothed value .... = 9.19596E-01
First moment .... = 1.01575E-02
Second moment .... = 4.36197E-03
Hmo .... = .617
Reflection coefficient .... = .247

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.01440E-01
Maximum smoothed value .... = 6.38775E+00
First moment .... = 5.34879E-02
Second moment .... = 1.85214E-02
Hmo .... = 2.196
Tp .... = 3.969

*** Reflected wave energy ***
Total smoothed energy .... = 6.24661E-03
Maximum smoothed value .... = 1.22923E-01
First moment .... = 2.33860E-03
Second moment .... = 1.15934E-03
Hmo .... = .316
Reflection coefficient .... = .144

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.94169E-01
Maximum smoothed value .... = 7.69152E+00
First moment .... = 3.85424E-02
Second moment .... = 7.59271E-03
Hmo .... = 1.772
Tp .... = 3.969

*** Reflected wave energy ***
Total smoothed energy .... = 8.41329E-04
Maximum smoothed value .... = 2.67726E-02
First moment .... = 1.69044E-04
Second moment .... = 3.63933E-05
Hmo .... = .116
Reflection coefficient .... = .065

Test identification .... : b126-09

Reflection Coefficients for Data file ...... : b126-09.wrl

Water Depth (Feet) .... = 3.58
Data Channels used to compute Coefficients .... = 5 6 7
Distance between channels in feet ...... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.41747E-01
Maximum smoothed value .... = 7.75320E+00
First moment .... = 5.32311E-02
Second moment .... = 1.39457E-02
Hmo .... = 1.967
Tp .... = 3.969

*** Reflected wave energy ***
Total smoothed energy .... = 8.12345E-03
Maximum smoothed value .... = 2.07846E-01
First moment .... = 2.84752E-03
Second moment .... = 1.11496E-03
Hmo .... = .361
Reflection coefficient .... = .183

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.37458E-01
Maximum smoothed value .... = 8.06063E+00
First moment .... = 2.85028E-02
Second moment .... = 7.01247E-03
Hmo .... = 1.949
Tp .... = 3.969

*** Reflected wave energy ***
Total smoothed energy .... = 2.87387E-03
Maximum smoothed value .... = 6.43158E-02
First moment .... = 1.17826E-03
Second moment .... = 6.37711E-04
Hmo .... = .214
Reflection coefficient .... = .110

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.13410E-01
Maximum smoothed value .... = 8.25552E+00
First moment .... = 4.27710E-02
Second moment .... = 8.59007E-03
Hmo .... = 1.848
Tp .... = 3.969

*** Reflected wave energy ***
Total smoothed energy .... = 3.11965E-03
Maximum smoothed value .... = 1.07601E-01
First moment .... = 6.39087E-04
Second moment .... = 1.36408E-04
Hmo .... = .223
Reflection coefficient .... = .121

Test identification .... : b126-09

Run identification .... : b126-09

Raw Data File .... : b126-09.wrl
Date of test .... : 19-FEB-1992 13:55:48

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.91921E-01
Maximum smoothed value .... = 5.16355E+00
First moment .... = 1.11218E-01
Second moment .... = 5.34901E-02
Hmo .... = 2.161
Tp .... = 3.969

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.94358E+00
Maximum smoothed value .... = 5.67650E+01
First moment .... = 6.13691E-01
Second moment .... = 2.21804E-01
Umo .... = 5.576
Tp .... = 3.969

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.80425E-02
Maximum smoothed value .... = 3.26483E-01
First moment .... = 6.21481E-03
Second moment .... = 2.90959E-03
Umo .... = .537
Tp .... = 4.000

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.63505E+00
Maximum smoothed value .... = 4.82954E+01
First moment .... = 5.15320E-01
Second moment .... = 1.86610E-01
Umo .... = 5.115
Tp .... = 3.969

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.81792E-03
Maximum smoothed value .... = 1.33951E-01
First moment .... = 3.43731E-03
Second moment .... = 1.75627E-03
Umo .... = .396
Tp .... = 1.954

Column 1

Test Identification .... : b126-10

Reflection Coefficients for Data file .... : b126-10.wrl

Water Depth (Feet) .... = 3.58
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy .... = 2.11348E-01
Maximum smoothed value .... = 5.74544E+00
First moment .... = 3.51946E-02
Second moment .... = 7.44195E-03
Hmo .... = 1.840
Tp .... = 5.389

*** Reflected wave energy ***
Total smoothed energy .... = 2.16329E-03
Maximum smoothed value .... = 3.76977E-02
First moment .... = 4.63972E-04
Second moment .... = 1.34357E-04
Hmo .... = .187
Reflection coefficient .... = .102 <——————

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy .... = 1.24675E-01
Maximum smoothed value .... = 1.99468E+00
First moment .... = 5.04891E-02
Second moment .... = 2.47208E-02
Hmo .... = 1.479
Tp .... = 2.599

*** Reflected wave energy ***
Total smoothed energy .... = 1.53335E-02
Maximum smoothed value .... = 4.34700E-01
First moment .... = 9.62068E-03
Second moment .... = 6.54048E-03
Hmo .... = .495
Reflection coefficient .... = .335 <——————

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy .... = 2.33177E-01
Maximum smoothed value .... = 5.14900E+00
First moment .... = 4.69733E-02
Second moment .... = 1.10000E-02
Hmo .... = 1.932
Tp .... = 5.389

*** Reflected wave energy ***
Total smoothed energy .... = 5.78181E-03
Maximum smoothed value .... = 1.84498E-01
First moment .... = 1.61585E-03
Second moment .... = 5.20047E-04
Hmo .... = .302
Reflection coefficient .... = .154 <——————

Column 2

Test Identification .... : b126-10

Reflection Coefficients for Data file .... : b126-10.wrl

Water Depth (Feet) .... = 3.58
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy .... = 1.47209E-01
Maximum smoothed value .... = 3.76343E+00
First moment .... = 3.43080E-02
Second moment .... = 9.17341E-03
Hmo .... = 1.535
Tp .... = 2.612

*** Reflected wave energy ***
Total smoothed energy .... = 6.45329E-03
Maximum smoothed value .... = 1.60653E-01
First moment .... = 1.14618E-03
Second moment .... = 2.60473E-04
Hmo .... = .321
Reflection coefficient .... = .209 <——————

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy .... = 1.35488E-01
Maximum smoothed value .... = 3.10754E+00
First moment .... = 3.25079E-02
Second moment .... = 1.14068E-02
Hmo .... = 1.472
Tp .... = 2.667

*** Reflected wave energy ***
Total smoothed energy .... = 5.51170E-03
Maximum smoothed value .... = 1.27716E-01
First moment .... = 2.36084E-03
Second moment .... = 1.27359E-03
Hmo .... = .297
Reflection coefficient .... = .202 <——————

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy .... = 1.69720E-01
Maximum smoothed value .... = 4.56721E+00
First moment .... = 4.44749E-02
Second moment .... = 1.29363E-02
Hmo .... = 1.648
Tp .... = 2.599

*** Reflected wave energy ***
Total smoothed energy .... = 9.39918E-03
Maximum smoothed value .... = 1.90608E-01
First moment .... = 2.19655E-03
Second moment .... = 5.96117E-04
Hmo .... = .388
Reflection coefficient .... = .235 <——————

Column 3

Test Identification .... : b126-10

Run Identification .... : b126-10

Raw Data File .... : b126-10.wrl
Date of test .... : 19-FEB-1992 14:12:30

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth = 13
Total smoothed energy .... = 3.14096E-01
Maximum smoothed value .... = 4.96405E+00
First moment .... = 1.13150E-01
Second moment .... = 5.45985E-02
Hmo .... = 2.242
Tp .... = 5.333

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth = 13
Total smoothed energy .... = 1.70358E+00
Maximum smoothed value .... = 3.91240E+01
First moment .... = 4.81692E-01
Second moment .... = 1.69598E-01
Umo .... = 5.216
Tp .... = 5.333

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth = 13
Total smoothed energy .... = 1.81295E-02
Maximum smoothed value .... = 1.84051E-01
First moment .... = 6.03343E-03
Second moment .... = 2.98416E-03
Umo .... = .539
Tp .... = 2.599

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth = 13
Total smoothed energy .... = 1.63642E+00
Maximum smoothed value .... = 3.40091E+01
First moment .... = 4.86601E-01
Second moment .... = 1.78229E-01
Umo .... = 5.117
Tp .... = 5.389

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth = 13
Total smoothed energy .... = 9.61209E-03
Maximum smoothed value .... = 8.78849E-02
First moment .... = 3.00523E-03
Second moment .... = 1.52259E-03
Umo .... = .392
Tp .... = 2.681

Test Identification : b126-11

Reflection Coefficients for Data file : b126-11.wrl

Water Depth (Feet) = 3.58
Data Channels used to compute Coefficients = 1 2 3
Distance between channels in feet = 7.00 2.50

==== Smoothed spectral densities for DL = 7.0 Ft. ====
=== Incident wave energy ===
Number of points in boxcar smooth = 13
Total smoothed energy = 1.14679E-01
Maximum smoothed value = 1.16499E+00
First moment = 2.19158E-02
Second moment = 5.12078E-03
Hmo = 1.356
Tp = 5.885
=== Reflected wave energy ===
Total smoothed energy = 3.58248E-03
Maximum smoothed value = 6.24638E-02
First moment = 1.10528E-03
Second moment = 4.13270E-04
Hmo = .239
Reflection coefficient = .176

==== Smoothed spectral densities for DL = 2.5 Ft. ====
=== Incident wave energy ===
Number of points in boxcar smooth = 13
Total smoothed energy = 6.26618E-02
Maximum smoothed value = 4.03109E-01
First moment = 1.48704E-02
Second moment = 5.66290E-03
Hmo = 1.001
Tp = 4.531
=== Reflected wave energy ===
Total smoothed energy = 2.95219E-03
Maximum smoothed value = 2.21020E-02
First moment = 1.48023E-03
Second moment = 8.94388E-04
Hmo = .217
Reflection coefficient = .217

==== Smoothed spectral densities for DL = 9.5 Ft. ====
=== Incident wave energy ===
Number of points in boxcar smooth = 13
Total smoothed energy = 1.05093E-01
Maximum smoothed value = 1.17951E+00
First moment = 1.86452E-02
Second moment = 4.17011E-03
Hmo = 1.297
Tp = 5.626
=== Reflected wave energy ===
Total smoothed energy = 3.01750E-03
Maximum smoothed value = 3.46659E-02
First moment = 7.47909E-04
Second moment = 2.19702E-04
Hmo = .220
Reflection coefficient = .169

Test Identification : b126-11

Reflection Coefficients for Data file : b126-11.wrl

Water Depth (Feet) = 3.58
Data Channels used to compute Coefficients = 5 6 7
Distance between channels in feet = 7.00 3.00

==== Smoothed spectral densities for DL = 7.0 Ft. ====
=== Incident wave energy ===
Number of points in boxcar smooth = 13
Total smoothed energy = 8.50936E-02
Maximum smoothed value = 6.70463E-01
First moment = 1.88815E-02
Second moment = 5.43851E-03
Hmo = 1.167
Tp = 5.626
=== Reflected wave energy ===
Total smoothed energy = 3.52186E-03
Maximum smoothed value = 4.20350E-02
First moment = 1.04987E-03
Second moment = 3.81496E-04
Hmo = .237
Reflection coefficient = .203

==== Smoothed spectral densities for DL = 3.0 Ft. ====
=== Incident wave energy ===
Number of points in boxcar smooth = 13
Total smoothed energy = 6.25406E-02
Maximum smoothed value = 1.13933E-01
First moment = 1.36059E-02
Second moment = 4.54705E-03
Hmo = 1.000
Tp = 2.960
=== Reflected wave energy ===
Total smoothed energy = 2.19988E-03
Maximum smoothed value = 2.65579E-02
First moment = 1.01185E-03
Second moment = 5.63126E-04
Hmo = .188
Reflection coefficient = .188

==== Smoothed spectral densities for DL = 10.0 Ft. ====
=== Incident wave energy ===
Number of points in boxcar smooth = 13
Total smoothed energy = 7.46690E-02
Maximum smoothed value = 6.98212E-01
First moment = 1.53321E-02
Second moment = 3.76978E-03
Hmo = 1.094
Tp = 5.626
=== Reflected wave energy ===
Total smoothed energy = 3.23242E-03
Maximum smoothed value = 1.01962E-01
First moment = 8.55944E-04
Second moment = 2.62983E-04
Hmo = .227
Reflection coefficient = .208

Test Identification : b126-11

Run Identification : b126-11

Raw Data File : b126-11.wrl
Date of test : 19-FEB-1992   14:30:35

==== Wave Gauge 4 Summary ====
=== Total Wave Energy ===
Number of points in boxcar smooth = 13
Total smoothed energy = 1.17009E-01
Maximum smoothed value = 1.00142E+00
First moment = 3.52530E-02
Second moment = 1.44609E-02
Hmo = 1.368
Tp = 5.626

==== Current Meter Summary Seaward Gauge ====
=== Horizontal Current Energy Channel 8 ===
Number of points in boxcar smooth = 13
Total smoothed energy = 9.48791E-01
Maximum smoothed value = 1.02476E+01
First moment = 2.27155E-01
Second moment = 6.98460E-02
Umo = 3.896
Tp = 5.885

=== Vertical Current Energy Channel 9 ===
Number of points in boxcar smooth = 13
Total smoothed energy = 1.48160E-02
Maximum smoothed value = 4.69612E-02
First moment = 4.09612E-03
Second moment = 1.92506E-03
Umo = .497
Tp = 6.024

==== Current Meter Summary Leeward Gauge ====
=== Horizontal Current Energy Channel 10 ===
Number of points in boxcar smooth = 13
Total smoothed energy = 8.55658E-01
Maximum smoothed value = 9.11129E+00
First moment = 2.08329E-01
Second moment = 6.64601E-02
Umo = 3.700
Tp = 5.885

=== Vertical Current Energy Channel 11 ===
Number of points in boxcar smooth = 13
Total smoothed energy = 8.99017E-03
Maximum smoothed value = 3.96153E-02
First moment = 2.34212E-03
Second moment = 1.16315E-03
Umo = .379
Tp = 5.565

Test Identification ..... : b126-12

Reflection Coefficients for Data file ..... : b126-12.wrl

Water Depth (Feet) ..... = 3.58
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet ..... = 7.00 2.50

Test Identification : b126-12	**Test Identification** : b126-12	
Reflection Coefficients for Data file : b126-12.wrl	Reflection Coefficients for Data file : b126-12.wrl	

*** Smoothed spectral densities for DL = 7.0 Ft. ***

*** Incident wave energy ***

	Col 1	Col 2	Col 3
Number of points in boxcar smooth	13	13	13
Total smoothed energy	2.71001E-01	1.87125E-01	2.93792E-01
Maximum smoothed value	5.75465E+00	3.96894E+00	4.09367E+00
First moment	6.02466E-02	5.35602E-02	1.07832E-01
Second moment	1.91066E-02	1.81998E-02	5.33637E-02
Umo	2.092	1.730	2.168
Tp	5.753	1.982	5.753

*** Reflected wave energy ***

	Col 1	Col 2
Total smoothed energy	1.81966E-02	2.25595E-02
Maximum smoothed value	1.27028E+00	1.31240E+00
First moment	8.61953E-03	8.61123E-03
Second moment	3.50557E-03	3.66338E-03
Umo	.349	.601
Reflection coefficient	.264	.347

*** Smoothed spectral densities for DL = 2.5 Ft. *** / *** Smoothed spectral densities for DL = 3.0 Ft. ***

*** Incident wave energy ***

	Col 1	Col 2
Number of points in boxcar smooth	13	13
Total smoothed energy	1.77142E-01	1.13650E-01
Maximum smoothed value	1.84543E+00	3.12891E+00
First moment	4.19065E-02	2.58941E-02
Second moment	1.78474E-02	7.50321E-03
Umo	1.430	1.348
Tp	2.813	2.829

*** Reflected wave energy ***

	Col 1	Col 2
Total smoothed energy	8.47916E-03	2.71453E-03
Maximum smoothed value	1.87200E-01	3.82567E-02
First moment	4.59014E-03	1.12016E-03
Second moment	2.77783E-03	5.41333E-04
Umo	.268	.208
Reflection coefficient	.258	.155

*** Smoothed spectral densities for DL = 9.5 Ft. *** / *** Smoothed spectral densities for DL = 10.0 Ft. ***

*** Incident wave energy ***

	Col 1	Col 2
Number of points in boxcar smooth	13	13
Total smoothed energy	2.20485E-01	1.50703E-01
Maximum smoothed value	5.78737E+00	4.14100E+00
First moment	3.59011E-02	3.77149E-02
Second moment	6.34508E-03	1.04251E-02
Umo	1.878	1.553
Tp	5.753	2.829

*** Reflected wave energy ***

	Col 1	Col 2
Total smoothed energy	4.88208E-03	5.85298E-03
Maximum smoothed value	1.62091E-01	1.21084E-01
First moment	1.35401E-03	1.20755E-03
Second moment	3.94608E-04	2.96171E-04
Umo	.280	.306
Reflection coefficient	.149	.197

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***

Number of points in boxcar smooth	13
Total smoothed energy	2.93792E-01
Maximum smoothed value	4.09367E+00
First moment	1.07832E-01
Second moment	5.33637E-02
Umo	2.168
Tp	5.753

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***

Number of points in boxcar smooth	13
Total smoothed energy	1.68541E+00
Maximum smoothed value	4.23959E+01
First moment	4.67778E-01
Second moment	1.52456E-01
Umo	5.193
Tp	5.689

*** Vertical Current Energy Channel 9 ***

Number of points in boxcar smooth	13
Total smoothed energy	1.81625E-02
Maximum smoothed value	1.91360E-01
First moment	5.78494E-03
Second moment	2.86756E-03
Umo	.539
Tp	5.689

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***

Number of points in boxcar smooth	13
Total smoothed energy	1.74977E+00
Maximum smoothed value	3.71087E+01
First moment	5.07936E-01
Second moment	1.87709E-01
Umo	5.291
Tp	5.753

*** Vertical Current Energy Channel 11 ***

Number of points in boxcar smooth	13
Total smoothed energy	1.26456E-02
Maximum smoothed value	1.25557E-01
First moment	4.14600E-02
Second moment	2.13711E-03
Umo	.430
Tp	5.626

Test Identification .... : bl26-13

Reflection Coefficients for Data file .... : bl26-13.wrl

Water Depth (Feet) .... = 3.58
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

=== Smoothed spectral densities for DL = 7.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.45549E-01
Maximum smoothed value .... = 6.94301E+00
First moment .... = 4.76317E-02
Second moment .... = 1.09221E-02
Hmo .... = 2.043
Tp .... = 5.172

=== Reflected wave energy ===
Total smoothed energy .... = 7.49451E-03
Maximum smoothed value .... = 1.67449E-01
First moment .... = 1.53209E-03
Second moment .... = 3.89128E-04
Hmo .... = .346
Reflection coefficient .... = .170

=== Smoothed spectral densities for DL = 2.5 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.30759E-01
Maximum smoothed value .... = 2.46990E+00
First moment .... = 4.11345E-02
Second moment .... = 1.36511E-02
Hmo .... = 1.446
Tp .... = 2.535

=== Reflected wave energy ===
Total smoothed energy .... = 6.10004E-03
Maximum smoothed value .... = 1.23123E-01
First moment .... = 2.75156E-03
Second moment .... = 1.39020E-03
Hmo .... = .312
Reflection coefficient .... = .216

=== Smoothed spectral densities for DL = 9.5 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.12261E-01
Maximum smoothed value .... = 6.93504E+00
First moment .... = 7.01552E-02
Second moment .... = 1.87513E-02
Hmo .... = 2.235
Tp .... = 5.172

=== Reflected wave energy ===
Total smoothed energy .... = 1.79322E-02
Maximum smoothed value .... = 5.34175E-01
First moment .... = 5.25415E-03
Second moment .... = 1.64417E-03
Hmo .... = .536
Reflection coefficient .... = .240

Test Identification .... : bl26-13

Reflection Coefficients for Data file .... : bl26-13.wrl

Water Depth (Feet) .... = 3.58
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

=== Smoothed spectral densities for DL = 7.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.24001E-01
Maximum smoothed value .... = 2.50357E+00
First moment .... = 2.79684E-02
Second moment .... = 7.53456E-03
Hmo .... = 1.409
Tp .... = 2.522

=== Reflected wave energy ===
Total smoothed energy .... = 5.56071E-03
Maximum smoothed value .... = 1.17989E-01
First moment .... = 1.18994E-03
Second moment .... = 3.07091E-04
Hmo .... = .298
Reflection coefficient .... = .212

=== Smoothed spectral densities for DL = 3.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.31469E-01
Maximum smoothed value .... = 2.16563E+00
First moment .... = 2.77411E-02
Second moment .... = 1.06708E-02
Hmo .... = 1.450
Tp .... = 5.224

=== Reflected wave energy ===
Total smoothed energy .... = 8.02851E-03
Maximum smoothed value .... = 1.66736E-01
First moment .... = 3.3189E-01
Second moment .... = 1.90920E-03
Hmo .... = .358
Reflection coefficient .... = .247

=== Smoothed spectral densities for DL = 10.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.51798E-01
Maximum smoothed value .... = 3.55528E+00
First moment .... = 3.96576E-02
Second moment .... = 1.17907E-02
Hmo .... = 1.558
Tp .... = 2.510

=== Reflected wave energy ===
Total smoothed energy .... = 1.24050E-02
Maximum smoothed value .... = 3.54429E-01
First moment .... = 3.51201E-02
Second moment .... = 1.09682E-03
Hmo .... = .446
Reflection coefficient .... = .286

Test Identification .... : bl26-13

Run Identification .... : bl26-13

Raw Data File .... : bl26-13.wrl
Date of test .... : 19-FEB-1992   15:08:08

==== Wave Gauge 4 Summary ====
=== Total Wave Energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.03268E-01
Maximum smoothed value .... = 5.22665E+00
First moment .... = 1.09402E-01
Second moment .... = 5.46669E-02
Hmo .... = 2.203
Tp .... = 5.172

==== Current Meter Summary Seaward Gauge ====
=== Horizontal Current Energy Channel 8 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.91977E+00
Maximum smoothed value .... = 4.66267E+01
First moment .... = 5.52347E-01
Second moment .... = 1.93699E-01
Umo .... = 5.542
Tp .... = 5.224

=== Vertical Current Energy Channel 9 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.17198E-02
Maximum smoothed value .... = 2.39598E-01
First moment .... = 7.30488E-03
Second moment .... = 3.50779E-03
Umo .... = .590
Tp .... = 2.560

==== Current Meter Summary Leeward Gauge ====
=== Horizontal Current Energy Channel 10 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.41931E+00
Maximum smoothed value .... = 2.97010E+01
First moment .... = 4.36641E-01
Second moment .... = 1.63351E-01
Umo .... = 4.765
Tp .... = 5.172

=== Vertical Current Energy Channel 11 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.07353E-02
Maximum smoothed value .... = 1.03488E-01
First moment .... = 3.61529E-03
Second moment .... = 1.90850E-03
Umo .... = .414
Tp .... = 2.547

Column 1

Test Identification .... : b126-14

Reflection Coefficients for Data file ... : b126-14.wrl

Water Depth (Feet) .... = 2.39
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 7.0239E-02
Maximum smoothed value .... = 1.2903E+00
First moment .... = 1.9277E-02
Second moment .... = 2.0040E-03
Hmo .... = 1.060
Tp .... = 5.333

*** Reflected wave energy ***
Total smoothed energy .... = 1.5594E-03
Maximum smoothed value .... = 6.1622E-02
First moment .... = 3.1219E-04
Second moment .... = 6.0680E-05
Hmo .... = .177
Reflection coefficient .... = .167

*** Smoothed spectral densities for DL = 2.5 Ft. ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 8.5517E-02
Maximum smoothed value .... = 1.7634E+00
First moment .... = 2.6459E-02
Second moment .... = 1.4371E-02
Hmo .... = 1.170
Tp .... = 5.349

*** Reflected wave energy ***
Total smoothed energy .... = 6.3973E-03
Maximum smoothed value .... = 2.0648E-01
First moment .... = 4.3391E-03
Second moment .... = 3.1390E-03
Hmo .... = .320
Reflection coefficient .... = .774

*** Smoothed spectral densities for DL = 9.5 Ft. ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 6.9967E-02
Maximum smoothed value .... = 2.3231E+00
First moment .... = 1.0601E-02
Second moment .... = 1.8297E-03
Hmo .... = 1.035
Tp .... = 5.333

*** Reflected wave energy ***
Total smoothed energy .... = 2.3339E-03
Maximum smoothed value .... = 6.0227E-02
First moment .... = 4.8359E-04
Second moment .... = 1.1713E-04
Hmo .... = .194
Reflection coefficient .... = .187

Column 2

Test Identification .... : b126-14

Reflection Coefficients for Data file ... : b126-14.wrl

Water Depth (Feet) .... = 2.39
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 3.9684E-02
Maximum smoothed value .... = 1.0692E+00
First moment .... = 1.0183E-02
Second moment .... = 2.8916E-03
Hmo .... = .797
Tp .... = 2.626

*** Reflected wave energy ***
Total smoothed energy .... = 1.5892E-03
Maximum smoothed value .... = 5.2799E-02
First moment .... = 2.3713E-04
Second moment .... = 4.2498E-05
Hmo .... = .159
Reflection coefficient .... = .200

*** Smoothed spectral densities for DL = 3.0 Ft. ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 5.1495E-02
Maximum smoothed value .... = 1.1298E+00
First moment .... = 1.3395E-02
Second moment .... = 4.7234E-03
Hmo .... = .908
Tp .... = 2.612

*** Reflected wave energy ***
Total smoothed energy .... = 1.1556E-03
Maximum smoothed value .... = 1.7030E-02
First moment .... = 4.7419E-04
Second moment .... = 2.4105E-04
Hmo .... = .136
Reflection coefficient .... = .150

*** Smoothed spectral densities for DL = 10.0 Ft. ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.3023E-02
Maximum smoothed value .... = 4.9736E-01
First moment .... = 1.8969E-03
Second moment .... = 2.8065E-04
Hmo .... = .457
Tp .... = 5.333

*** Reflected wave energy ***
Total smoothed energy .... = 1.2018E-03
Maximum smoothed value .... = 4.2598E-02
First moment .... = 1.8618E-04
Second moment .... = 3.1038E-05
Hmo .... = .139
Reflection coefficient .... = .304

Column 3

Test Identification .... : b126-14

Run Identification .... : b126-14

Raw Data File .... : b126-14.wrl
Date of test .... : 19-FEB-1992 16:30:03

**** Wave Gauge 4 Summary ****
*** Total Wave Energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.5097E-01
Maximum smoothed value .... = 1.4721E+00
First moment .... = 6.1671E-02
Second moment .... = 3.3069E-02
Hmo .... = 1.554
Tp .... = 5.333

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 8.6004E-01
Maximum smoothed value .... = 1.6990E+01
First moment .... = 3.0039E-01
Second moment .... = 1.3779E-01
Umo .... = 3.710
Tp .... = 5.349

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.0817E-02
Maximum smoothed value .... = 1.1586E-01
First moment .... = 4.7800E-03
Second moment .... = 2.8669E-03
Umo .... = .416
Tp .... = 1.809

**** Current Meter Summary Leeward Gauge ****
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.0434E+00
Maximum smoothed value .... = 1.4805E+01
First moment .... = 3.8324E-01
Second moment .... = 1.7312E-01
Umo .... = 4.090
Tp .... = 5.349

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.3586E-02
Maximum smoothed value .... = 1.1234E-01
First moment .... = 4.4721E-03
Second moment .... = 2.4384E-03
Umo .... = .465
Tp .... = 2.738

Test Identification : b126-15
Reflection Coefficients for Data file : b126-15.wrl

Water Depth (Feet) .... = -2.39
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet ... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 5.84316E-02
Maximum smoothed value .... = 7.20787E-01
First moment .... = 1.09612E-02
Second moment .... = 2.63918E-03
Hmo .... = .967
Tp .... = 5.699

*** Reflected wave energy ***
Total smoothed energy .... = 2.91503E-03
Maximum smoothed value .... = 2.32316E-02
First moment .... = 7.73273E-04
Second moment .... = 2.51121E-04
Hmo .... = .214
Reflection coefficient .... = .223

*** Smoothed spectral densities for DL = 2.5 Ft. ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 4.50315E-02
Maximum smoothed value .... = 5.76740E-01
First moment .... = 1.09676E-02
Second moment .... = 4.78048E-03
Hmo .... = .849
Tp .... = 5.447

*** Reflected wave energy ***
Total smoothed energy .... = 2.52508E-03
Maximum smoothed value .... = 1.77855E-02
First moment .... = 1.16563E-03
Second moment .... = 7.12544E-04
Hmo .... = .201
Reflection coefficient .... = .237

*** Smoothed spectral densities for DL = 9.5 Ft. ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 5.42205E-02
Maximum smoothed value .... = 7.43017E-01
First moment .... = 9.34655E-03
Second moment .... = 1.96324E-03
Hmo .... = .931
Tp .... = 5.689

*** Reflected wave energy ***
Total smoothed energy .... = 3.11079E-03
Maximum smoothed value .... = 4.33368E-02
First moment .... = 7.15716E-04
Second moment .... = 1.90912E-04
Hmo .... = .223
Reflection coefficient .... = .240

Test Identification : b126-15
Reflection Coefficients for Data file : b126-15.wrl

Water Depth (Feet) .... = -2.39
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet ... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 4.17161E-02
Maximum smoothed value .... = 2.66265E-01
First moment .... = 1.07158E-02
Second moment .... = 3.30653E-03
Hmo .... = .817
Tp .... = 5.626

*** Reflected wave energy ***
Total smoothed energy .... = 2.59984E-03
Maximum smoothed value .... = 2.93590E-02
First moment .... = 7.11678E-04
Second moment .... = 2.34275E-04
Hmo .... = .204
Reflection coefficient .... = .250

*** Smoothed spectral densities for DL = 3.0 Ft. ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 4.42322E-02
Maximum smoothed value .... = 2.36920E-01
First moment .... = 1.19410E-02
Second moment .... = 4.64206E-03
Hmo .... = .841
Tp .... = 5.626

*** Reflected wave energy ***
Total smoothed energy .... = 1.62090E-03
Maximum smoothed value .... = 1.69397E-02
First moment .... = 6.53561E-04
Second moment .... = 3.62310E-04
Hmo .... = .161
Reflection coefficient .... = .191

*** Smoothed spectral densities for DL = 10.0 Ft. ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 2.60053E-02
Maximum smoothed value .... = 2.85988E-01
First moment .... = 4.95540E-03
Second moment .... = 1.09473E-03
Hmo .... = .645
Tp .... = 5.626

*** Reflected wave energy ***
Total smoothed energy .... = 2.57911E-03
Maximum smoothed value .... = 1.15691E-01
First moment .... = 5.98341E-04
Second moment .... = 1.60880E-04
Hmo .... = .203
Reflection coefficient .... = .315

Test Identification : b126-15
Run Identification : b126-15

Raw Data File .... : b126-15.wrl
Date of test .... : 19-FEB-1992 16:52:24

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 6.69064E-02
Maximum smoothed value .... = 6.24555E-01
First moment .... = 2.14146E-02
Second moment .... = 9.64104E-03
Hmo .... = 1.035
Tp .... = 5.626

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 7.5378E-01
Maximum smoothed value .... = 7.10268E+00
First moment .... = 1.99938E-01
Second moment .... = 7.28159E-02
Umo .... = 3.473
Tp .... = 5.689

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.64909E-02
Maximum smoothed value .... = 6.90868E-02
First moment .... = 4.38135E-03
Second moment .... = 2.25667E-03
Umo .... = .514
Tp .... = 64.000

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 6.67602E-01
Maximum smoothed value .... = 6.63995E+00
First moment .... = 1.81934E-01
Second moment .... = 6.81379E-02
Umo .... = 3.268
Tp .... = 5.626

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 9.99635E-03
Maximum smoothed value .... = 2.57196E-02
First moment .... = 2.93423E-03
Second moment .... = 1.55624E-03
Umo .... = .398
Tp .... = 34.571

Test Identification ..... : bl26-16

Reflection Coefficients for Data file ..... : bl26-16.wrl

Water Depth (Feet) ..... = 2.39
Data Channels used to compute Coefficient ... = 1 2 3
Distance between channels in feet ..... = 7.00 2.50

=== Smoothed spectral densities for DL = 7.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth ..... = 13
Total smoothed energy ..... = 9.37603E-02
Maximum smoothed value ..... = 2.34538E+00
First moment ..... = 1.67162E-02
Second moment ..... = 4.23345E-03
Hmo ..... = 1.225
Tp ..... = 6.169

=== Reflected wave energy ===
Total smoothed energy ..... = 3.63199E-03
Maximum smoothed value ..... = 1.57808E-01
First moment ..... = 1.15363E-00
Second moment ..... = 4.36036E-04
Hmo ..... = .241
Reflection coefficient ..... = .197

=== Smoothed spectral densities for DL = 2.5 Ft. ===
Number of points in boxcar smooth ..... = 13
Total smoothed energy ..... = 4.33214E-02
Maximum smoothed value ..... = 6.97810E-01
First moment ..... = 1.30436E-02
Second moment ..... = 6.68946E-03
Hmo ..... = .833
Tp ..... = 3.140

=== Reflected wave energy ===
Total smoothed energy ..... = 1.51019E-03
Maximum smoothed value ..... = 2.69291E-02
First moment ..... = 7.86105E-04
Second moment ..... = 4.30548E-04
Hmo ..... = .155
Reflection coefficient ..... = .187

=== Smoothed spectral densities for DL = 9.5 Ft. ===
Number of points in boxcar smooth ..... = 13
Total smoothed energy ..... = 8.59593E-02
Maximum smoothed value ..... = 2.39051E+00
First moment ..... = 1.34759E-02
Second moment ..... = 2.57326E-03
Hmo ..... = 1.168
Tp ..... = 6.169

=== Reflected wave energy ===
Total smoothed energy ..... = 2.22743E-03
Maximum smoothed value ..... = 5.34982E-02
First moment ..... = 3.79999E-04
Second moment ..... = 7.69324E-05
Hmo ..... = .189
Reflection coefficient ..... = .162

Test Identification ..... : bl26-16

Reflection Coefficients for Data file ..... : bl26-16.wrl

Water Depth (Feet) ..... = 2.39
Data Channels used to compute Coefficient ... = 5 6 7
Distance between channels in feet ..... = 7.00 3.00

=== Smoothed spectral densities for DL = 7.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth ..... = 13
Total smoothed energy ..... = 5.72681E-02
Maximum smoothed value ..... = 2.42196E+00
First moment ..... = 1.83190E-02
Second moment ..... = 6.87525E-03
Hmo ..... = .957
Tp ..... = 2.065

=== Reflected wave energy ===
Total smoothed energy ..... = 5.82795E-03
Maximum smoothed value ..... = 3.73347E-01
First moment ..... = 2.33502E-03
Second moment ..... = 9.57125E-04
Hmo ..... = .305
Reflection coefficient ..... = .319

=== Smoothed spectral densities for DL = 3.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth ..... = 13
Total smoothed energy ..... = 4.63799E-02
Maximum smoothed value ..... = 8.24541E-01
First moment ..... = 1.42358E-02
Second moment ..... = 6.09608E-03
Hmo ..... = .861
Tp ..... = 2.073

=== Reflected wave energy ===
Total smoothed energy ..... = 2.29167E-03
Maximum smoothed value ..... = 5.64814E-02
First moment ..... = 1.23200E-03
Second moment ..... = 7.54056E-04
Hmo ..... = .191
Reflection coefficient ..... = .222

=== Smoothed spectral densities for DL = 10.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth ..... = 13
Total smoothed energy ..... = 2.54151E-02
Maximum smoothed value ..... = 5.55951E-01
First moment ..... = 4.76290E-03
Second moment ..... = 1.05745E-03
Hmo ..... = .638
Tp ..... = 6.169

=== Reflected wave energy ===
Total smoothed energy ..... = 9.97114E-04
Maximum smoothed value ..... = 2.72682E-02
First moment ..... = 2.39547E-04
Second moment ..... = 6.29081E-05
Hmo ..... = .126
Reflection coefficient ..... = .198

Test Identification ..... : bl26-16

Run Identification ..... : bl26-16

Raw Data File ..... : bl26-16.wrl
Date of test ..... : 20-FEB-1992 04:23:53

=== Wave Gauge 4 Summary ===
=== Total Wave Energy ===
Number of points in boxcar smooth ..... = 13
Total smoothed energy ..... = 1.01659E-01
Maximum smoothed value ..... = 1.48973E+00
First moment ..... = 3.80229E-02
Second moment ..... = 2.09793E-02
Hmo ..... = 1.275
Tp ..... = 6.169

=== Current Meter Summary Seaward Gauge ===
=== Horizontal Current Energy Channel 8 ===
Number of points in boxcar smooth ..... = 13
Total smoothed energy ..... = 1.09430E+00
Maximum smoothed value ..... = 2.81110E+01
First moment ..... = 2.90674E-01
Second moment ..... = 1.13071E-01
Umo ..... = 4.192
Tp ..... = 6.169

=== Vertical Current Energy Channel 9 ===
Number of points in boxcar smooth ..... = 13
Total smoothed energy ..... = 1.28747E-02
Maximum smoothed value ..... = 1.80492E-01
First moment ..... = 3.97309E-03
Second moment ..... = 2.10065E-03
Umo ..... = .454
Tp ..... = 5.953

=== Current Meter Summary Leeward Gauge ===
=== Horizontal Current Energy Channel 10 ===
Number of points in boxcar smooth ..... = 13
Total smoothed energy ..... = 8.38320E-01
Maximum smoothed value ..... = 1.71540E+01
First moment ..... = 2.56763E-01
Second moment ..... = 1.09627E-01
Umo ..... = 3.662
Tp ..... = 6.169

=== Vertical Current Energy Channel 11 ===
Number of points in boxcar smooth ..... = 13
Total smoothed energy ..... = 1.19038E-02
Maximum smoothed value ..... = 1.00261E-01
First moment ..... = 3.76218E-03
Second moment ..... = 2.08433E-03
Umo ..... = .436
Tp ..... = 6.244

Test identification .... : b126-17

Run identification .... : b126-17

Raw Data File .... : b126-17.wri
Date of test .... : 20-FEB-1992 08:39:37

Wave Gauge 4 Summary
Total Wave Energy

Number of points in boxcar smooth ..... - 13
Total smoothed energy .... - 9.50056E-02
Maximum smoothed value .... - 1.50045E+00
First moment .... - 3.83643E-02
Second moment .... - 1.96022E-02
Umo .... - 1.233
Tp .... - 2.216

Current Meter Summary Seaward Gauge
Horizontal Current Energy Channel 8

Number of points in boxcar smooth ..... - 13
Total smoothed energy .... - 9.06939E-01
Maximum smoothed value .... - 1.73122E+01
First moment .... - 3.58079E-01
Second moment .... - 1.55048E-01
Umo .... - 3.974
Tp .... - 4.531

Vertical Current Energy smooth

Number of points in boxcar smooth ..... - 13
Total smoothed energy .... - 1.50044E-02
Maximum smoothed value .... - 2.0371E-01
First moment .... - 5.78944E-03
Second moment .... - 3.04059E-03
Umo .... - .490
Tp .... - 2.207

Current Meter Summary Leeward Gauge
Horizontal Current Energy Channel 10

Number of points in boxcar smooth ..... - 13
Total smoothed energy .... - 9.82599E-01
Maximum smoothed value .... - 1.95885E+01
First moment .... - 3.69469E-01
Second moment .... - 1.60357E-01
Umo .... - 3.965
Tp .... - 2.216

Vertical Current Energy Channel 11

Number of points in boxcar smooth ..... - 13
Total smoothed energy .... - 8.77928E-03
Maximum smoothed value .... - 1.22765E-01
First moment .... - 3.00217E-03
Second moment .... - 1.51503E-03
Umo .... - .375
Tp .... - 4.491

Test identification .... : b126-17

Reflection Coefficients for Data file .... : b126-17.wri

Water Depth (Feet) .... - 2.39
Data Channels used to compute Coefficients ... - 5 6 7
Distance between channels in feet .... - 7.00 3.00

Smoothed spectral densities for DL - 7.0 Ft.
Incident wave energy

Number of points in boxcar smooth ..... - 13
Total smoothed energy .... - 1.32342E-01
Maximum smoothed value .... - 4.14334E+00
First moment .... - 4.46181E-02
Second moment .... - 1.60846E-02
Umo .... - 1.455
Tp .... - 2.207

Reflected wave energy

Total smoothed energy .... - 7.38935E-03
Maximum smoothed value .... - 2.07160E-01
First moment .... - 2.37457E-03
Second moment .... - 8.36507E-04
Umo .... - .344
Reflection coefficient .... - .236

Smoothed spectral densities for DL - 3.0 Ft.
Incident wave energy

Number of points in boxcar smooth ..... - 13
Total smoothed energy .... - 1.09950E-01
Maximum smoothed value .... - 2.64286E+00
First moment .... - 2.85764E-02
Second moment .... - 9.34677E-03
Umo .... - 1.326
Tp .... - 2.207

Reflected wave energy

Total smoothed energy .... - 2.50020E-03
Maximum smoothed value .... - 5.48672E-02
First moment .... - 6.37046E-04
Second moment .... - 2.77259E-04
Umo .... - .200
Reflection coefficient .... - .151

Smoothed spectral densities for DL - 10.0 Ft.
Incident wave energy

Number of points in boxcar smooth ..... - 13
Total smoothed energy .... - 3.01745E-02
Maximum smoothed value .... - 1.16785E+00
First moment .... - 5.39126E-03
Second moment .... - 9.66302E-04
Umo .... - .695
Tp .... - 4.531

Reflected wave energy

Total smoothed energy .... - 2.82879E-03
Maximum smoothed value .... - 1.06573E-01
First moment .... - 5.10429E-04
Second moment .... - 9.30949E-05
Umo .... - .213
Reflection coefficient .... - .306

Test identification .... : b126-17

Reflection Coefficients for Data file .... : b126-17.wri

Water Depth (Feet) .... - 2.39
Data Channels used to compute Coefficients ... - 1 2 3
Distance between channels in feet .... - 7.00 2.59

Smoothed spectral densities for DL - 7.0 Ft.
Incident wave energy

Number of points in boxcar smooth ..... - 13
Total smoothed energy .... - 1.82063E-01
Maximum smoothed value .... - 2.27708E+00
First moment .... - 2.61308E-02
Second moment .... - 7.87015E-03
Umo .... - 1.264
Tp .... - 4.491

Reflected wave energy

Total smoothed energy .... - 4.88448E-03
Maximum smoothed value .... - 1.67525E-01
First moment .... - 1.73177E-03
Second moment .... - 6.08197E-04
Umo .... - .280
Reflection coefficient .... - .218

Smoothed spectral densities for DL - 2.5 Ft.
Incident wave energy

Number of points in boxcar smooth ..... - 13
Total smoothed energy .... - 1.03597E-01
Maximum smoothed value .... - 1.94275E+00
First moment .... - 2.80172E-02
Second moment .... - 1.30948E-02
Umo .... - 1.287
Tp .... - 4.531

Reflected wave energy

Total smoothed energy .... - 4.46621E-03
Maximum smoothed value .... - 1.23357E-01
First moment .... - 2.46160E-03
Second moment .... - 1.90428E-03
Umo .... - .272
Reflection coefficient .... - .212

Smoothed spectral densities for DL - 9.5 Ft.
Incident wave energy

Number of points in boxcar smooth ..... - 13
Total smoothed energy .... - 4.04875E-02
Maximum smoothed value .... - 2.33219E+00
First moment .... - 1.05744E-02
Second moment .... - 1.85981E-03
Umo .... - .903
Tp .... - 4.531

Reflected wave energy

Total smoothed energy .... - 3.67208E-04
Maximum smoothed value .... - 1.25157E-02
First moment .... - 6.57067E-05
Second moment .... - 1.22677E-05
Umo .... - .077
Reflection coefficient .... - .078

Column 1

Test Identification .... : b126-18

Reflection Coefficients for Data file .... : b126-18.wrl

Water Depth (Feet) .... = -2.39
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL - 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.09903E-02
Maximum smoothed value .... = 2.73349E+00
First moment .... = 1.36578E-02
Second moment .... = 2.61335E-03
Hmo .... = 1.065
Tp .... = 3.969

*** Reflected wave energy ***
Total smoothed energy .... = 1.81677E-03
Maximum smoothed value .... = 6.55746E-02
First moment .... = 3.64195E-04
Second moment .... = 7.74448E-05
Hmo .... = .170
Reflection coefficient .... = .160 <——

*** Smoothed spectral densities for DL - 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.33000E-01
Maximum smoothed value .... = 2.77109E+00
First moment .... = 3.38159E-02
Second moment .... = 1.29228E-02
Hmo .... = 1.459
Tp .... = 3.969

*** Reflected wave energy ***
Total smoothed energy .... = 4.46334E-03
Maximum smoothed value .... = 9.40124E-02
First moment .... = 1.19202E-03
Second moment .... = 5.36773E-04
Hmo .... = .267
Reflection coefficient .... = .183 <——

*** Smoothed spectral densities for DL - 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.26678E-02
Maximum smoothed value .... = 2.81897E+00
First moment .... = 1.30454E-02
Second moment .... = 3.11448E-03
Hmo .... = 1.080
Tp .... = 3.969

*** Reflected wave energy ***
Total smoothed energy .... = 2.99121E-03
Maximum smoothed value .... = 1.13210E-01
First moment .... = 6.24468E-04
Second moment .... = 1.31677E-04
Hmo .... = .219
Reflection coefficient .... = .203 <——

Column 2

Test Identification .... : b126-18

Reflection Coefficients for Data file .... : b126-18.wrl

Water Depth (Feet) .... = -2.39
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL - 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.21197E-02
Maximum smoothed value .... = 2.38768E+00
First moment .... = 1.19993E-02
Second moment .... = 2.32066E-03
Hmo .... = .997
Tp .... = 3.969

*** Reflected wave energy ***
Total smoothed energy .... = 3.79956E-04
Maximum smoothed value .... = 1.77831E-02
First moment .... = 9.43320E-05
Second moment .... = 2.83617E-05
Hmo .... = .077
Tp .... = .077 <——

*** Smoothed spectral densities for DL - 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.44956E-02
Maximum smoothed value .... = 2.54225E+00
First moment .... = 2.10569E-02
Second moment .... = 7.97627E-03
Hmo .... = 1.230
Tp .... = 3.969

*** Reflected wave energy ***
Total smoothed energy .... = 4.06021E-03
Maximum smoothed value .... = 7.25480E-02
First moment .... = 1.41348E-03
Second moment .... = 7.21188E-04
Hmo .... = .255
Reflection coefficient .... = .207 <——

*** Smoothed spectral densities for DL - 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.17244E-02
Maximum smoothed value .... = 2.77768E+00
First moment .... = 1.50889E-02
Second moment .... = 3.18100E-03
Hmo .... = 1.071
Tp .... = 3.969

*** Reflected wave energy ***
Total smoothed energy .... = 1.20048E-03
Maximum smoothed value .... = 4.42376E-02
First moment .... = 2.54138E-04
Second moment .... = 5.44861E-05
Hmo .... = .129
Reflection coefficient .... = .129 <——

Column 3

Test Identification .... : b126-18

Run Identification .... : b126-18

Raw Data File .... : b126-18.wrl
Date of test .... : 20-FEB-1992 08:56:01

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.50129E-01
Maximum smoothed value .... = 2.33461E+00
First moment .... = 5.83811E-02
Second moment .... = 2.94381E-02
Hmo .... = 1.550
Tp .... = 3.969

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.99028E+00
Maximum smoothed value .... = 5.24139E+01
First moment .... = 4.51736E-01
Second moment .... = 1.85737E-01
Uno .... = 5.629
Tp .... = 73.143

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.26717E-02
Maximum smoothed value .... = 6.57009E+00
First moment .... = 7.95091E-01
Second moment .... = 3.97447E-03
Uno .... = .918
Tp .... = 73.143

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.30816E-01
Maximum smoothed value .... = 1.94179E+01
First moment .... = 3.53129E-01
Second moment .... = 1.59130E-01
Uno .... = 3.459
Tp .... = 3.969

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.34290E-03
Maximum smoothed value .... = 1.19402E-01
First moment .... = 2.87249E-03
Second moment .... = 1.61790E-03
Uno .... = .343
Tp .... = 1.939

Test Identification .... : b126-19

Reflection Coefficients for Data file .... : b126-19.wrl

Water Depth (Feet) .... = 1.19
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

=== Smoothed spectral densities for DL = 7.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.44609E-02
Maximum smoothed value .... = 4.28595E-01
First moment .... = 2.65277E-03
Second moment .... = 5.69925E-04
Umo .... = .481
Tp .... = 5.333

=== Reflected wave energy ===
Total smoothed energy .... = 9.16981E-04
Maximum smoothed value .... = 6.81018E-02
First moment .... = 2.73246E-04
Second moment .... = 8.47911E-05
Umo .... = .121
Umo .... = .252
Reflection coefficient .... = .523   <

=== Smoothed spectral densities for DL = 2.5 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.37605E-02
Maximum smoothed value .... = 3.69909E-01
First moment .... = 3.16190E-03
Second moment .... = 1.39342E-03
Umo .... = .469
Tp .... = 5.389

=== Reflected wave energy ===
Total smoothed energy .... = 1.17807E-03
Maximum smoothed value .... = 3.59916E-02
First moment .... = 1.90758E-04
Second moment .... = 8.42418E-05
Umo .... = .137
Reflection coefficient .... = .293   <

=== Smoothed spectral densities for DL = 9.5 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.89298E-02
Maximum smoothed value .... = 7.31297E-01
First moment .... = 2.90516E-03
Second moment .... = 4.46006E-04
Umo .... = .550
Tp .... = 5.333

=== Reflected wave energy ===
Total smoothed energy .... = 1.51578E-03
Maximum smoothed value .... = 5.73794E-02
First moment .... = 2.35612E-04
Second moment .... = 3.69698E-05
Umo .... = .156
Reflection coefficient .... = .283   <

Test Identification .... : b126-19

Reflection Coefficients for Data file .... : b126-19.wrl

Water Depth (Feet) .... = 1.19
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

=== Smoothed spectral densities for DL = 7.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.98156E-03
Maximum smoothed value .... = 5.40334E-01
First moment .... = 2.26933E-03
Second moment .... = 6.87185E-04
Umo .... = .357
Tp .... = 2.695

=== Reflected wave energy ===
Total smoothed energy .... = 2.33594E-03
Maximum smoothed value .... = 1.74648E-01
First moment .... = 6.98144E-04
Second moment .... = 2.16968E-04
Umo .... = .193
Reflection coefficient .... = .541   <

=== Smoothed spectral densities for DL = 3.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.53465E-02
Maximum smoothed value .... = 3.20502E-01
First moment .... = 6.13109E-03
Second moment .... = 2.76012E-03
Umo .... = .496
Tp .... = 1.796

=== Reflected wave energy ===
Total smoothed energy .... = 7.84420E-04
Maximum smoothed value .... = 9.90050E-03
First moment .... = 3.16385E-04
Second moment .... = 1.64768E-04
Umo .... = .112
Reflection coefficient .... = .226   <

=== Smoothed spectral densities for DL = 10.0 Ft. ===
=== Incident wave energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.83463E-03
Maximum smoothed value .... = 1.06981E-01
First moment .... = 4.40028E-04
Second moment .... = 6.86288E-05
Umo .... = .213
Tp .... = 5.389

=== Reflected wave energy ===
Total smoothed energy .... = 1.75251E-04
Maximum smoothed value .... = 6.04508E-03
First moment .... = 2.73703E-05
Second moment .... = 4.40222E-06
Umo .... = .053
Reflection coefficient .... = .249   <

Test Identification .... : b126-19

Run Identification .... : b126-19

Raw Data File .... : b126-19.wrl
Date of test .... : 20-FEB-1992   10:13:34

===== Wave Gauge 4 Summary =====
=== Total Wave Energy ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.22267E-02
Maximum smoothed value .... = 3.77993E-01
First moment .... = 1.19311E-02
Second moment .... = 8.26263E-03
Umo .... = .996
Tp .... = 1.333

===== Current Meter Summary Seaward Gauge =====
=== Horizontal Current Energy Channel 8 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 4.38431E-01
Maximum smoothed value .... = 9.41541E+00
First moment .... = 1.55992E-01
Second moment .... = 8.01124E-02
Umo .... = 2.649
Tp .... = 5.389

=== Vertical Current Energy Channel 9 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.03448E-02
Maximum smoothed value .... = 8.98797E-02
First moment .... = 4.64432E-03
Second moment .... = 3.06778E-03
Umo .... = .411
Tp .... = 1.347

===== Current Meter Summary Leeward Gauge =====
=== Horizontal Current Energy Channel 10 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.24434E-01
Maximum smoothed value .... = 4.20013E+00
First moment .... = 1.69458E-01
Second moment .... = 1.03486E-01
Umo .... = 2.278
Tp .... = 1.796

=== Vertical Current Energy Channel 11 ===
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.78777E-03
Maximum smoothed value .... = 1.63060E-01
First moment .... = 4.72467E-03
Second moment .... = 3.23451E-03
Umo .... = .396
Tp .... = 1.337

Test Identification .... : b126-20

Reflection Coefficients for Data file .... : b126-20.wrl

Water Depth (Feet) .... = 1.19
Data Channels used to compute Coefficients ... =   1   2   3
Distance between channels in feet .... =   7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... =   13
Total smoothed energy .... = 1.09698E-02
Maximum smoothed value .... = 1.37991E-04
First moment .... = 1.89785E-03
Second moment .... = 3.80393E-04
Umo .... = .417
Tp .... = 5.505

*** Reflected wave energy ***
Total smoothed energy .... = 1.07148E-03
Maximum smoothed value .... = 2.30915E-02
First moment .... = 2.17901E-04
Second moment .... = 2.51065E-03
Umo .... = .120
Reflection coefficient .... = .340 <------
*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... =   13
Total smoothed energy .... = 1.01636E-02
Maximum smoothed value .... = 9.03283E-02
First moment .... = 1.76901E-04
Second moment .... = 1.20331E-03
Umo .... = .403
Tp .... = 5.505

*** Reflected wave energy ***
Total smoothed energy .... = 7.47601E-04
Maximum smoothed value .... = 6.93790E-03
First moment .... = 2.42052E-04
Second moment .... = 1.42304E-04
Umo .... = .109
Reflection coefficient .... = .271 <------
*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... =   13
Total smoothed energy .... = 1.63498E-02
Maximum smoothed value .... = 2.44057E-01
First moment .... = 2.57257E-03
Second moment .... = 4.29787E-04
Umo .... = .511
Tp .... = 5.505

*** Reflected wave energy ***
Total smoothed energy .... = 3.34742E-03
Maximum smoothed value .... = 4.33400E-02
First moment .... = 5.52057E-04
Second moment .... = 9.84731E-05
Umo .... = .231
Reflection coefficient .... = .453 <------

Test Identification .... : b126-20

Reflection Coefficients for Data file .... : b126-20.wrl

Water Depth (Feet) .... = 1.19
Data Channels used to compute Coefficients ... =   5   6   7
Distance between channels in feet .... =   7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... =   13
Total smoothed energy .... = 7.21546E-03
Maximum smoothed value .... = 1.44166E-01
First moment .... = 1.62058E-03
Second moment .... = 4.4285E-04
Umo .... = .328
Tp .... = 2.753

*** Reflected wave energy ***
Total smoothed energy .... = 1.26344E-03
Maximum smoothed value .... = 2.86335E-02
First moment .... = 2.93589E-04
Second moment .... = 8.04225E-05
Umo .... = .142
Reflection coefficient .... = .434 <------
*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... =   13
Total smoothed energy .... = 1.14668E-02
Maximum smoothed value .... = 4.38712E-02
First moment .... = 4.41778E-03
Second moment .... = 2.05266E-03
Umo .... = .428
Tp .... = 2.753

*** Reflected wave energy ***
Total smoothed energy .... = 6.26583E-04
Maximum smoothed value .... = 5.82760E-03
First moment .... = 1.84056E-04
Second moment .... = 8.55499E-05
Umo .... = .100
Reflection coefficient .... = .234 <------
*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... =   13
Total smoothed energy .... = 5.62019E-03
Maximum smoothed value .... = 3.33897E-01
First moment .... = 8.95038E-04
Second moment .... = 1.57059E-04
Umo .... = .300
Tp .... = 3.821

*** Reflected wave energy ***
Total smoothed energy .... = 2.29874E-03
Maximum smoothed value .... = 2.97318E-01
First moment .... = 3.94270E-04
Second moment .... = 7.54160E-05
Umo .... = .192
Reflection coefficient .... = .640 <------

Test Identification .... : b126-20

Run Identification .... : b126-20

Raw Data File .... : b126-20.wrl
Date of test .... : 20-FEB-1992   10:38:01

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth .... =   13
Total smoothed energy .... = 1.36971E-02
Maximum smoothed value .... = 9.98174E-02
First moment .... = 4.31585E-03
Second moment .... = 2.32072E-03
Umo .... = .468
Tp .... = 5.505

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... =   13
Total smoothed energy .... = 3.48813E-01
Maximum smoothed value .... = 2.47474E+00
First moment .... = 1.12372E-01
Second moment .... = 5.39026E-02
Umo .... = 2.332
Tp .... = 5.505

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... =   13
Total smoothed energy .... = 1.21376E-02
Maximum smoothed value .... = 3.01144E-02
First moment .... = 4.13561E-03
Second moment .... = 2.41976E-03
Umo .... = .441
Tp .... = 73.143

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... =   13
Total smoothed energy .... = 2.49609E-01
Maximum smoothed value .... = 1.86531E+00
First moment .... = 7.82950E-02
Second moment .... = 3.74325E-02
Umo .... = 1.998
Tp .... = 5.885

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... =   13
Total smoothed energy .... = 5.75809E-03
Maximum smoothed value .... = 1.14815E-02
First moment .... = 2.16437E-03
Second moment .... = 1.42969E-03
Umo .... = .304
Tp .... = 42.667

Left column

Test Identification .... : b100-01

Reflection Coefficients for Data file .... : b100-01.wrl

Water Depth (Feet) .... = 3.00
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.65661E-01
Maximum smoothed value .... = 3.54146E+00
First moment .... = 3.55327E-02
Second moment .... = 1.09759E-02
Hmo .... = 1.628
Tp .... = 5.953

*** Reflected wave energy ***
Total smoothed energy .... = 9.86008E-03
Maximum smoothed value .... = 3.08348E-01
First moment .... = 3.68477E-03
Second moment .... = 1.51173E-03
Hmo .... = .397
Reflection coefficient .... = .244

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.27411E-02
Maximum smoothed value .... = 1.06170E+00
First moment .... = 2.38708E-02
Second moment .... = 1.01100E-02
Hmo .... = 1.079
Tp .... = 3.012

*** Reflected wave energy ***
Total smoothed energy .... = 3.44993E-03
Maximum smoothed value .... = 6.29799E-02
First moment .... = 1.58926E-02
Second moment .... = 8.65948E-04
Hmo .... = .235
Reflection coefficient .... = .218

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.28168E-01
Maximum smoothed value .... = 3.54518E+00
First moment .... = 2.09772E-02
Second moment .... = 4.17639E-03
Hmo .... = 1.432
Tp .... = 5.953

*** Reflected wave energy ***
Total smoothed energy .... = 3.01433E-03
Maximum smoothed value .... = 6.62908E-02
First moment .... = 6.50627E-04
Second moment .... = 1.61657E-04
Hmo .... = .220
Reflection coefficient .... = .153

Middle column

Test Identification .... : b100-01

Reflection Coefficients for Data file .... : b100-01.wrl

Water Depth (Feet) .... = 3.00
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.36930E-01
Maximum smoothed value .... = 2.96357E+00
First moment .... = 4.48831E-02
Second moment .... = 1.68553E-02
Hmo .... = 1.480
Tp .... = 2.040

*** Reflected wave energy ***
Total smoothed energy .... = 1.13406E-02
Maximum smoothed value .... = 3.96635E-01
First moment .... = 4.36361E-03
Second moment .... = 1.79005E-03
Hmo .... = .426
Reflection coefficient .... = .288

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.13267E-02
Maximum smoothed value .... = 1.46610E+00
First moment .... = 2.89349E-02
Second moment .... = 1.25294E-02
Hmo .... = 1.209
Tp .... = 3.030

*** Reflected wave energy ***
Total smoothed energy .... = 7.17020E-03
Maximum smoothed value .... = 2.03530E-01
First moment .... = 4.14580E-03
Second moment .... = 2.62169E-03
Hmo .... = .339
Reflection coefficient .... = .280

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.85339E-02
Maximum smoothed value .... = 1.77526E+00
First moment .... = 1.57174E-02
Second moment .... = 4.02749E-03
Hmo .... = 1.048
Tp .... = 3.030

*** Reflected wave energy ***
Total smoothed energy .... = 3.00194E-03
Maximum smoothed value .... = 7.34534E-02
First moment .... = 6.76866E-04
Second moment .... = 1.72528E-04
Hmo .... = .219
Reflection coefficient .... = .209

Right column

Test Identification .... : b100-01

Run Identification .... : b100-01

Raw Data File .... : b100-01.wrl
Date of test .... : 20-FEB-1992 13:21:47

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 1.8949E-01
Maximum smoothed value = 2.79060E+00
First moment = 6.7085E-01
Second moment = 3.32410E-02
Hmo = 1.741
Tp = 5.953

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth = 13
Total smoothed energy = 1.39255E+00
Maximum smoothed value = 3.57801E+01
First moment = 3.61034E-01
Second moment = 1.27507E-01
Hmo = 4.730
Tp = 5.885

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth = 13
Total smoothed energy = 1.40161E-02
Maximum smoothed value = 1.88189E-01
First moment = 4.76909E-03
Second moment = 2.48350E-03
Hmo = .474
Tp = 5.953

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth = 13
Total smoothed energy = 1.14410E+00
Maximum smoothed value = 2.08688E+01
First moment = 3.58487E-01
Second moment = 1.44959E-01
Hmo = 4.279
Tp = 5.953

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth = 13
Total smoothed energy = 8.20712E-02
Maximum smoothed value = 7.65920E-02
First moment = 2.72344E-03
Second moment = 1.45799E-03
Hmo = .362
Tp = 6.093

***** Wave Gauge 4 Summary *****
*** Total Wave Energy ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 1.01794E-01
Maximum smoothed value	= 7.42694E-01
First moment	= 3.10708E-02
Second moment	= 1.34815E-02
Umo	= 1.276
Tp	= 6.321

***** Current Meter Summary Seaward Gauge *****
*** Horizontal Current Energy Channel 8 ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 1.08635E+00
Maximum smoothed value	= 1.06923E+01
First moment	= 2.50894E-01
Second moment	= 8.11983E-02
Umo	= 4.173
Tp	= 6.321

*** Vertical Current Energy Channel 9 ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 1.78208E-02
Maximum smoothed value	= 9.79763E-02
First moment	= 4.4843E-03
Second moment	= 2.17473E-03
Umo	= .534
Tp	= 73.143

***** Current Meter Summary Leeward Gauge *****
*** Horizontal Current Energy Channel 10 ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 9.27188E-01
Maximum smoothed value	= 7.09509E+00
First moment	= 2.20421E-01
Second moment	= 7.55026E-02
Umo	= 3.852
Tp	= 6.321

*** Vertical Current Energy Channel 11 ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 1.33159E-02
Maximum smoothed value	= 4.58997E-02
First moment	= 3.50442E-03
Second moment	= 1.74938E-03
Umo	= .462
Tp	= 6.649

Test Identification .... : b100-02

Reflection Coefficients for Data file .... : b100-02.wrl

Water Depth (Feet) .... = 3.00
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 6.35920E-02
Maximum smoothed value	= 3.77904E-01
First moment	= 1.45657E-02
Second moment	= 4.30445E-03
Umo	= 1.009
Tp	= 6.169

*** Reflected wave energy ***

Total smoothed energy	= 3.01370E-03
Maximum smoothed value	= 3.26694E-02
First moment	= 8.79364E-04
Second moment	= 3.11975E-04
Umo	= .220
Reflection coefficient	= .218

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 5.36512E-02
Maximum smoothed value	= 2.54676E-01
First moment	= 1.35548E-02
Second moment	= 5.00000E-03
Umo	= .927
Tp	= 3.066

*** Reflected wave energy ***

Total smoothed energy	= 2.15814E-03
Maximum smoothed value	= 2.06324E-02
First moment	= 1.01232E-03
Second moment	= 5.78334E-04
Umo	= .186
Reflection coefficient	= .201

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 5.11502E-02
Maximum smoothed value	= 3.90845E-01
First moment	= 9.92797E-03
Second moment	= 2.32213E-03
Umo	= .905
Tp	= 6.169

*** Reflected wave energy ***

Total smoothed energy	= 2.67589E-03
Maximum smoothed value	= 9.52391E-02
First moment	= 6.04475E-04
Second moment	= 1.70471E-04
Umo	= .207
Reflection coefficient	= .229

Test Identification .... : b100-02

Reflection Coefficients for Data file .... : b100-02.wrl

Water Depth (Feet) .... = 3.00
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 1.04036E-01
Maximum smoothed value	= 9.67402E-01
First moment	= 1.99035E-02
Second moment	= 5.44662E-03
Umo	= 1.290
Tp	= 6.321

*** Reflected wave energy ***

Total smoothed energy	= 5.47011E-03
Maximum smoothed value	= 1.00101E-01
First moment	= 1.71218E-03
Second moment	= 6.45049E-04
Umo	= .296
Reflection coefficient	= .229

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 5.97539E-03
Maximum smoothed value	= 3.61191E-01
First moment	= 6.36769E-02
Second moment	= 6.97535E-03
Umo	= .978
Tp	= 3.200

*** Reflected wave energy ***

Total smoothed energy	= 3.95887E-03
Maximum smoothed value	= 3.06190E-02
First moment	= 1.90247E-02
Second moment	= 1.13593E-03
Umo	= .252
Reflection coefficient	= .257

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***

Number of points in boxcar smooth	= 13
Total smoothed energy	= 9.02007E-02
Maximum smoothed value	= 9.93659E-01
First moment	= 1.49974E-02
Second moment	= 3.67037E-03
Umo	= 1.201
Tp	= 6.321

*** Reflected wave energy ***

Total smoothed energy	= 3.55966E-03
Maximum smoothed value	= 3.16579E-02
First moment	= 8.04005E-04
Second moment	= 2.19388E-04
Umo	= .239
Reflection coefficient	= .199

Left column

Test Identification .... : b857-01

Reflection Coefficients for Data file .... : b857-01.wrl

Water Depth (Feet) .... = 3.50
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.33261E-01
Maximum smoothed value .... = 5.61043E+00
First moment .... = 3.83076E-02
Second moment .... = 9.66007E-03
Hmo .... = 1.932
Tp .... = 6.827

*** Reflected wave energy ***
Total smoothed energy .... = 8.08236E-03
Maximum smoothed value .... = 1.49528E-01
First moment .... = 2.13669E-03
Second moment .... = 7.17149E-04
Hmo .... = .360
Reflection coefficient .... = .186

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.28166E-01
Maximum smoothed value .... = 1.65333E+00
First moment .... = 4.45096E-02
Second moment .... = 2.18324E-02
Hmo .... = 1.432
Tp .... = 3.303

*** Reflected wave energy ***
Total smoothed energy .... = 1.38152E-02
Maximum smoothed value .... = 3.43712E-01
First moment .... = 8.20761E-03
Second moment .... = 5.43990E-03
Hmo .... = .470
Reflection coefficient .... = .328

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.99945E-01
Maximum smoothed value .... = 5.60343E+00
First moment .... = 2.71128E-02
Second moment .... = 4.68369E-03
Hmo .... = 1.771
Tp .... = 6.827

*** Reflected wave energy ***
Total smoothed energy .... = 5.01370E-03
Maximum smoothed value .... = 9.16919E-02
First moment .... = 9.11636E-04
Second moment .... = 1.99659E-04
Hmo .... = .283
Reflection coefficient .... = .160

Middle column

Test Identification .... : b857-01

Reflection Coefficients for Data file .... : b857-01.wrl

Water Depth (Feet) .... = 3.50
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.68401E-02
Maximum smoothed value .... = 1.49593E+00
First moment .... = 2.17005E-02
Second moment .... = 6.57628E-03
Hmo .... = 1.245
Tp .... = 6.827

*** Reflected wave energy ***
Total smoothed energy .... = 3.52821E-03
Maximum smoothed value .... = 8.98149E-02
First moment .... = 1.01101E-03
Second moment .... = 3.99657E-04
Hmo .... = .238
Reflection coefficient .... = .191

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.57313E-02
Maximum smoothed value .... = 1.00113E+00
First moment .... = 1.49796E-02
Second moment .... = 5.44530E-03
Hmo .... = .944
Tp .... = 3.303

*** Reflected wave energy ***
Total smoothed energy .... = 4.51607E-03
Maximum smoothed value .... = 6.50805E-02
First moment .... = 1.65839E-03
Second moment .... = 8.27720E-04
Hmo .... = .269
Reflection coefficient .... = .285

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.23312E-02
Maximum smoothed value .... = 1.55670E+00
First moment .... = 1.23104E-02
Second moment .... = 2.52902E-03
Hmo .... = 1.076
Tp .... = 6.827

*** Reflected wave energy ***
Total smoothed energy .... = 2.60220E-03
Maximum smoothed value .... = 5.60140E-02
First moment .... = 5.19246E-04
Second moment .... = 1.20823E-04
Hmo .... = .204
Reflection coefficient .... = .190

Right column

Test Identification .... : b857-01

Run Identification .... : b857-01

Raw Data File .... : b857-01.wrl
Date of test .... : 20-FEB-1992 14:52:40

***** Wave Gauge 4 Summary *****
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.51052E-01
Maximum smoothed value .... = 4.31822E+00
First moment .... = 7.95906E-02
Second moment .... = 3.76600E-02
Hmo .... = 2.004
Tp .... = 6.827

***** Current Meter Summary Seaward Gauge *****
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.96899E+00
Maximum smoothed value .... = 5.16242E+01
First moment .... = 4.60490E-01
Second moment .... = 1.43305E-01
Umo .... = 5.613
Tp .... = 6.827

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.38047E-02
Maximum smoothed value .... = 4.67826E-01
First moment .... = 6.21445E-03
Second moment .... = 2.61740E-03
Umo .... = .617
Tp .... = 6.827

***** Current Meter Summary Leeward Gauge *****
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.41729E+00
Maximum smoothed value .... = 3.25106E+01
First moment .... = 3.72628E-01
Second moment .... = 1.34028E-01
Umo .... = 4.762
Tp .... = 6.827

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.33592E-03
Maximum smoothed value .... = 9.41249E-02
First moment .... = 3.06132E-03
Second moment .... = 1.65066E-03
Umo .... = .386
Tp .... = 6.737

Test Identification .... : b857-02

Run Identification .... : b857-02

Raw Data File .... : b857-02.wrl
Date of test .... : 20-FEB-1992   15:11:15

**** Wave Gauge 4 Summary ****
*** Total Wave Energy ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.50799E-01
Maximum smoothed value .... = 4.36751E+00
First moment .... = 7.94193E-02
Second moment .... = 3.75866E-02
Hmo .... = 2.003
Tp .... = 6.481

**** Current Meter Summary Seaward Gauge ****
*** Horizontal Current Energy Channel 8 ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.67369E+02
Maximum smoothed value .... = 4.37108E+03
First moment .... = 3.91291E+01
Second moment .... = 1.23503E+01
Umo .... = 51.748
Tp .... = 6.564

*** Vertical Current Energy Channel 9 ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.14610E+00
Maximum smoothed value .... = 4.06002E+01
First moment .... = 5.31931E-01
Second moment .... = 2.26394E-01
Umo .... = 5.860
Tp .... = 6.649

**** Current Meter Summary Leeward Gauge ****
*** Horizontal Current Energy Channel 10 ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.26874E+02
Maximum smoothed value .... = 2.93867E+03
First moment .... = 3.30668E+01
Second moment .... = 1.17751E+01
Umo .... = 45.055
Tp .... = 6.400

*** Vertical Current Energy Channel 11 ***

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.71841E-01
Maximum smoothed value .... = 7.63465E+00
First moment .... = 2.56439E-01
Second moment .... = 1.41340E-01
Umo .... = 3.514
Tp .... = 6.564

Test Identification .... : b857-02

Reflection Coefficients for Data file .... : b857-02.wrl

Water Depth (Feet) .... = 3.50
Data Channels used to compute Coefficients ... =   5   6   7
Distance between channels in feet .... =   7.00   3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
**** Incident wave energy ****

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.47737E-02
Maximum smoothed value .... = 1.53782E+00
First moment .... = 2.06736E-02
Second moment .... = 6.19920E-03
Hmo .... = 1.231
Tp .... = 6.321

**** Reflected wave energy ****

Total smoothed energy .... = 3.13389E-03
Maximum smoothed value .... = 7.72286E-02
First moment .... = 9.64671E-04
Second moment .... = 3.49044E-04
Hmo .... = .224
Reflection coefficient .... = .182

*** Smoothed spectral densities for DL = 3.0 Ft. ***
**** Incident wave energy ****

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.39057E-02
Maximum smoothed value .... = 9.93806E-01
First moment .... = 1.44577E-02
Second moment .... = 5.26745E-03
Hmo .... = .929
Tp .... = 3.241

**** Reflected wave energy ****

Total smoothed energy .... = 4.44016E-03
Maximum smoothed value .... = 6.70040E-02
First moment .... = 1.59334E-03
Second moment .... = 7.84161E-04
Hmo .... = .267
Reflection coefficient .... = .287

*** Smoothed spectral densities for DL = 10.0 Ft. ***
**** Incident wave energy ****

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.06931E-02
Maximum smoothed value .... = 1.59466E+00
First moment .... = 1.24269E-02
Second moment .... = 2.54894E-03
Hmo .... = 1.081
Tp .... = 6.400

**** Reflected wave energy ****

Total smoothed energy .... = 2.55259E-03
Maximum smoothed value .... = 5.73487E-02
First moment .... = 5.11794E-04
Second moment .... = 1.19009E-04
Hmo .... = .202
Reflection coefficient .... = .187

Test Identification .... : b857-02

Reflection Coefficients for Data file .... : b857-02.wrl

Water Depth (Feet) .... = 3.50
Data Channels used to compute Coefficients ... =   1   2   3
Distance between channels in feet .... =   7.00   2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
**** Incident wave energy ****

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.33482E-01
Maximum smoothed value .... = 5.66487E+00
First moment .... = 3.13366E-02
Second moment .... = 9.65891E-03
Hmo .... = 1.933
Tp .... = 6.649

**** Reflected wave energy ****

Total smoothed energy .... = 8.35866E-03
Maximum smoothed value .... = 1.53192E-01
First moment .... = 2.22442E-03
Second moment .... = 7.48703E-04
Hmo .... = .366
Reflection coefficient .... = .189

*** Smoothed spectral densities for DL = 2.5 Ft. ***
**** Incident wave energy ****

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.28396E-01
Maximum smoothed value .... = 1.66388E+00
First moment .... = 4.46224E-03
Second moment .... = 2.18663E-02
Hmo .... = 1.433
Tp .... = 3.261

**** Reflected wave energy ****

Total smoothed energy .... = 1.36467E-02
Maximum smoothed value .... = 3.41600E-01
First moment .... = 8.21612E-03
Second moment .... = 5.44135E-03
Hmo .... = .471
Reflection coefficient .... = .329

*** Smoothed spectral densities for DL = 9.5 Ft. ***
**** Incident wave energy ****

Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.96776E-01
Maximum smoothed value .... = 5.66699E+00
First moment .... = 2.72392E-02
Second moment .... = 4.69625E-03
Hmo .... = 1.774
Tp .... = 6.564

**** Reflected wave energy ****

Total smoothed energy .... = 5.29723E-03
Maximum smoothed value .... = 9.94368E-02
First moment .... = 9.64303E-04
Second moment .... = 2.12695E-04
Hmo .... = .291
Reflection coefficient .... = .164

Column 1

Test Identification .... : b857-03

Reflection Coefficients for Data file .... : b857-03.wrl

Water Depth (Feet) .... = 3.50
Data Channels used to compute Coefficient ... = 1 2 3
Distance between channels in feet ... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.4244E-01
Maximum smoothed value .... = 1.65295E+00
First moment .... = 2.34255E-02
Second moment .... = 5.99508E-03
Hmo .... = 1.509
Tp .... = 6.919

*** Reflected wave energy ***
Total smoothed energy .... = 8.21689E-03
Maximum smoothed value .... = 5.62405E-02
First moment .... = 2.36998E-03
Second moment .... = 8.23918E-04
Hmo .... = .363
Reflection coefficient .... = .240

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.18948E-02
Maximum smoothed value .... = 3.00656E-01
First moment .... = 1.88179E-02
Second moment .... = 7.90697E-03
Hmo .... = 1.073
Tp .... = 3.507

*** Reflected wave energy ***
Total smoothed energy .... = 3.42581E-03
Maximum smoothed value .... = 5.96699E-02
First moment .... = 2.58519E-03
Second moment .... = 1.53217E-03
Hmo .... = .295
Reflection coefficient .... = .275

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.34098E-01
Maximum smoothed value .... = 1.68018E+00
First moment .... = 2.09954E-02
Second moment .... = 4.41976E-03
Hmo .... = 1.465
Tp .... = 6.919

*** Reflected wave energy ***
Total smoothed energy .... = 7.08229E-03
Maximum smoothed value .... = 1.04036E-01
First moment .... = 1.70143E-03
Second moment .... = 5.03807E-04
Reflection coefficient .... = .230

Column 2

Test Identification .... : b857-03

Reflection Coefficients for Data file .... : b857-03.wrl

Water Depth (Feet) .... = 3.50
Data Channels used to compute Coefficient ... = 5 6 7
Distance between channels in feet ... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 8.92901E-02
Maximum smoothed value .... = 7.68760E-01
First moment .... = 1.85234E-02
Second moment .... = 5.46254E-03
Hmo .... = 1.195
Tp .... = 6.919

*** Reflected wave energy ***
Total smoothed energy .... = 4.55732E-03
Maximum smoothed value .... = 6.05712E-02
First moment .... = 1.38717E-03
Second moment .... = 5.15337E-04
Hmo .... = .270
Reflection coefficient .... = .224

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.73708E-02
Maximum smoothed value .... = 2.70332E-01
First moment .... = 1.38575E-02
Second moment .... = 4.99910E-03
Hmo .... = .958
Tp .... = 3.631

*** Reflected wave energy ***
Total smoothed energy .... = 2.82744E-03
Maximum smoothed value .... = 2.80781E-02
First moment .... = 1.27132E-03
Second moment .... = 6.99126E-04
Hmo .... = .213
Reflection coefficient .... = .222

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 7.72778E-02
Maximum smoothed value .... = 7.96070E-01
First moment .... = 1.46039E-02
Second moment .... = 3.29994E-03
Hmo .... = 1.112
Tp .... = 6.919

*** Reflected wave energy ***
Total smoothed energy .... = 5.03231E-03
Maximum smoothed value .... = 1.91050E-01
First moment .... = 1.35888E-03
Second moment .... = 4.27500E-04
Hmo .... = .284
Reflection coefficient .... = .255

Column 3

Test Identification .... : b857-03

Run Identification .... : b857-03

Raw Data File .... : b857-03.wrl
Date of test .... : 20-FEB-1992 15:58:41

*** Wave Gauge 4 Summary ***
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.36755E-01
Maximum smoothed value .... = 1.46279E+00
First moment .... = 3.71827E-02
Second moment .... = 1.50355E-02
Hmo .... = 1.479
Tp .... = 6.919

*** Current Meter Summary Seaward Gauge ***
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.40830E+00
Maximum smoothed value .... = 1.61567E+01
First moment .... = 2.95757E-01
Second moment .... = 8.86859E-02
Umo .... = 4.747
Tp .... = 6.919

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.47845E-02
Maximum smoothed value .... = 1.94201E-01
First moment .... = 1.09457E-02
Second moment .... = 6.44447E-03
Umo .... = .936
Tp .... = 73.143

*** Current Meter Summary Leeward Gauge ***
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.42059E+00
Maximum smoothed value .... = 1.49666E+01
First moment .... = 2.96222E-01
Second moment .... = 9.00699E-02
Umo .... = 4.768
Tp .... = 6.919

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.92755E-02
Maximum smoothed value .... = 6.27404E-02
First moment .... = 5.36671E-03
Second moment .... = 2.78270E-03
Umo .... = .555
Tp .... = 6.919

Test Identification ...... : b750-01

Reflection Coefficients for Data file ...... : b750-01.wrt

Water Depth (Feet) ...... = 4.00
Data Channels used to compute Coefficients ... = 1   2   3
Distance between channels in feet ...... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy ...... = 2.85167E-01
Maximum smoothed value ...... = 7.31478E+00
First moment ...... = 3.69603E-02
Second moment ...... = 7.62093E-03
Hmo ...... = 2.136
Tp ...... = 6.827

*** Reflected wave energy ***
Total smoothed energy ...... = 6.21527E-03
Maximum smoothed value ...... = 1.37093E-01
First moment ...... = 1.11699E-03
Second moment ...... = 3.19864E-04
Hmo ...... = .315
Reflection coefficient ...... = .148 <------

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy ...... = 1.24034E-01
Maximum smoothed value ...... = 2.11813E+00
First moment ...... = 3.15104E-02
Second moment ...... = 1.32056E-02
Hmo ...... = 1.400
Tp ...... = 3.413

*** Reflected wave energy ***
Total smoothed energy ...... = 6.99720E-03
Maximum smoothed value ...... = 1.43767E-01
First moment ...... = 3.54475E-03
Second moment ...... = 2.04216E-03
Hmo ...... = .335
Reflection coefficient ...... = .239 <------

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy ...... = 2.95198E-01
Maximum smoothed value ...... = 7.27634E+00
First moment ...... = 4.66214E-02
Second moment ...... = 1.05973E-02
Hmo ...... = 2.175
Tp ...... = 6.827

*** Reflected wave energy ***
Total smoothed energy ...... = 1.30172E-02
Maximum smoothed value ...... = 4.72677E-01
First moment ...... = 3.70461E-03
Second moment ...... = 1.25993E-03
Hmo ...... = .456
Reflection coefficient ...... = .210 <------

Test Identification ...... : b750-01

Reflection Coefficients for Data file ...... : b750-01.wrt

Water Depth (Feet) ...... = 4.00
Data Channels used to compute Coefficients ... = 5   6   7
Distance between channels in feet ...... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy ...... = 9.91129E-02
Maximum smoothed value ...... = 2.09945E+00
First moment ...... = 1.63281E-02
Second moment ...... = 4.15466E-03
Hmo ...... = 1.259
Tp ...... = 6.827

*** Reflected wave energy ***
Total smoothed energy ...... = 3.28377E-03
Maximum smoothed value ...... = 4.68090E-02
First moment ...... = 6.42914E-04
Second moment ...... = 1.82315E-04
Hmo ...... = .229
Reflection coefficient ...... = .182 <------

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy ...... = 5.02547E-02
Maximum smoothed value ...... = 7.24165E-01
First moment ...... = 1.37910E-02
Second moment ...... = 5.61853E-03
Hmo ...... = .897
Tp ...... = 3.413

*** Reflected wave energy ***
Total smoothed energy ...... = 6.54409E-03
Maximum smoothed value ...... = 2.29184E-01
First moment ...... = 3.21584E-03
Second moment ...... = 1.91793E-03
Hmo ...... = .324
Reflection coefficient ...... = .361 <------

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy ...... = 8.40517E-02
Maximum smoothed value ...... = 2.12148E+00
First moment ...... = 1.20452E-02
Second moment ...... = 2.27680E-03
Hmo ...... = 1.160
Tp ...... = 6.827

*** Reflected wave energy ***
Total smoothed energy ...... = 3.91422E-03
Maximum smoothed value ...... = 1.55759E-01
First moment ...... = 8.09700E-04
Second moment ...... = 2.04477E-04
Hmo ...... = .230
Reflection coefficient ...... = .216 <------

Test Identification ...... : b750-01

Run Identification ...... : b750-01

Raw Data File ...... : b750-01.wrt
Date of test ...... : 21-FEB-1992 08:28:42

**** Wave Gauge 4 Summary ****
*** Total Wave Energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy ...... = 2.61151E-01
Maximum smoothed value ...... = 5.08236E+00
First moment ...... = 7.99785E-02
Second moment ...... = 3.37660E-02
Hmo ...... = 2.044
Tp ...... = 6.827

**** Current Meter Summary Seaward Gauge ****
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy ...... = 2.50683E+00
Maximum smoothed value ...... = 6.50003E+01
First moment ...... = 5.49460E-01
Second moment ...... = 1.65186E-01
Umo ...... = 6.333
Tp ...... = 6.827

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy ...... = 2.61867E-02
Maximum smoothed value ...... = 4.31576E-01
First moment ...... = 6.45991E-03
Second moment ...... = 2.71058E-03
Umo ...... = .647
Tp ...... = 6.737

**** Current Meter Summary Leeward Gauge Channel 10 ****
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy ...... = 2.12228E+00
Maximum smoothed value ...... = 5.26301E+01
First moment ...... = 5.01066E-01
Second moment ...... = 1.67171E-01
Umo ...... = 5.827
Tp ...... = 6.827

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy ...... = 1.88379E-02
Maximum smoothed value ...... = 1.47327E-01
First moment ...... = 6.24443E-03
Second moment ...... = 3.41710E-03
Umo ...... = .549
Tp ...... = 7.529

Test Identification .... : b750-02

Reflection Coefficients for Data file .... : b750-02.wrl

Water Depth (Feet) .... = 4.00
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
**** Incident wave energy ****
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 9.32718E-02
Maximum smoothed value .... - 3.21959E+00
First moment .... - 8.29729E-03
Second moment .... - 1.10393E-03
Hmo .... - 1.235
Tp .... - 7.111

**** Reflected wave energy ****
Total smoothed energy .... - 1.20706E-03
Maximum smoothed value .... - 4.37931E-02
First moment .... - 9.43671E-05
Second moment .... - 1.16661E-05
Hmo .... - .139
Reflection coefficient .... - .113

*** Smoothed spectral densities for DL = 2.5 Ft. ***
**** Incident wave energy ****
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 1.28718E-02
Maximum smoothed value .... - 3.95303E-01
First moment .... - 1.45291E-03
Second moment .... - 2.83101E-04
Hmo .... - .454
Tp .... - 3.483

**** Reflected wave energy ****
Total smoothed energy .... - 3.31304E-04
Maximum smoothed value .... - 6.14456E-03
First moment .... - 6.69165E-05
Second moment .... - 2.35803E-05
Hmo .... - .073
Reflection coefficient .... - .160

*** Smoothed spectral densities for DL = 9.5 Ft. ***
**** Incident wave energy ****
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 9.74243E-02
Maximum smoothed value .... - 3.22678E+00
First moment .... - 1.09635E-02
Second moment .... - 1.70490E-03
Hmo .... - 1.249
Tp .... - 7.111

**** Reflected wave energy ****
Total smoothed energy .... - 1.69465E-03
Maximum smoothed value .... - 4.14109E-02
First moment .... - 3.08515E-04
Second moment .... - 8.34722E-05
Hmo .... - .165
Reflection coefficient .... - .132

Test Identification .... : b750-02

Reflection Coefficients for Data file .... : b750-02.wrl

Water Depth (Feet) .... = 4.00
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
**** Incident wave energy ****
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 7.73095E-02
Maximum smoothed value .... - 1.96131E+00
First moment .... - 1.02740E-02
Second moment .... - 2.18469E-03
Hmo .... - 1.112
Tp .... - 7.111

**** Reflected wave energy ****
Total smoothed energy .... - 8.69278E-04
Maximum smoothed value .... - 2.05592E-02
First moment .... - 1.10477E-04
Second moment .... - 2.06048E-05
Hmo .... - .118
Reflection coefficient .... - .106

*** Smoothed spectral densities for DL = 3.0 Ft. ***
**** Incident wave energy ****
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 3.04078E-02
Maximum smoothed value .... - 6.44409E-01
First moment .... - 5.77147E-03
Second moment .... - 1.49204E-03
Hmo .... - .698
Tp .... - 3.483

**** Reflected wave energy ****
Total smoothed energy .... - 5.00873E-04
Maximum smoothed value .... - 7.33260E-03
First moment .... - 2.00976E-04
Second moment .... - 9.99498E-05
Hmo .... - .090
Reflection coefficient .... - .128

*** Smoothed spectral densities for DL = 10.0 Ft. ***
**** Incident wave energy ****
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 7.03577E-02
Maximum smoothed value .... - 1.98543E+00
First moment .... - 9.05886E-03
Second moment .... - 1.50179E-03
Hmo .... - 1.061
Tp .... - 7.111

**** Reflected wave energy ****
Total smoothed energy .... - 6.70470E-04
Maximum smoothed value .... - 1.29152E-02
First moment .... - 1.11832E-04
Second moment .... - 2.28257E-05
Hmo .... - .104
Reflection coefficient .... - .098

Test Identification .... : b750-02

Run Identification .... : b750-02

Raw Data File .... : b750-02.wrl
Date of test .... : 21-FEB-1992 08:58:17

***** Wave Gauge 4 Summary *****
*** Total Wave Energy ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 9.00738E-02
Maximum smoothed value .... - 2.77587E+00
First moment .... - 1.67596E-02
Second moment .... - 4.01862E-03
Hmo .... - 1.200
Tp .... - 7.111

**** Current Meter Summary Seaward Gauge ****
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 1.01742E+00
Maximum smoothed value .... - 3.48482E+01
First moment .... - 1.66163E-01
Second moment .... - 3.16002E-02
Umo .... - 4.035
Tp .... - 7.014

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 7.66959E-03
Maximum smoothed value .... - 1.35722E-01
First moment .... - 1.70716E-03
Second moment .... - 7.25952E-04
Umo .... - .350
Tp .... - 7.111

**** Current Meter Summary Leeward Gauge ****
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 1.01387E+00
Maximum smoothed value .... - 3.34079E+01
First moment .... - 1.73114E-01
Second moment .... - 1.57453E-02
Umo .... - 4.028
Tp .... - 7.111

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... - 13
Total smoothed energy .... - 7.26522E-03
Maximum smoothed value .... - 9.87533E-02
First moment .... - 1.69310E-03
Second moment .... - 7.64241E-04
Umo .... - .341
Tp .... - 6.737

Left column

Test Identification .... : b750-03

Reflection Coefficients for Data file ...... : b750-03.wrl

Water Depth (Feet) .... = 4.00
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.05947E-01
Maximum smoothed value .... = 5.96939E+00
First moment .... = 2.95448E-02
Second moment .... = 4.15106E-03
Hmo .... = 1.815
Tp .... = 7.211

*** Reflected wave energy ***
Total smoothed energy .... = 1.76051E-03
Maximum smoothed value .... = 5.40271E-02
First moment .... = 2.00047E-04
Second moment .... = 4.30693E-05
Hmo .... = .168
Reflection coefficient .... = .092

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.86663E-02
Maximum smoothed value .... = 1.34168E+00
First moment .... = 1.07922E-02
Second moment .... = 3.54428E-03
Hmo .... = .969
Tp .... = 3.483

*** Reflected wave energy ***
Total smoothed energy .... = 1.61952E-03
Maximum smoothed value .... = 2.33811E-02
First moment .... = 7.24911E-04
Second moment .... = 3.85556E-04
Hmo .... = .161
Reflection coefficient .... = .166

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.11179E-01
Maximum smoothed value .... = 5.96434E+00
First moment .... = 2.90001E-02
Second moment .... = 5.75033E-03
Hmo .... = 1.838
Tp .... = 7.211

*** Reflected wave energy ***
Total smoothed energy .... = 3.24494E-03
Maximum smoothed value .... = 9.31847E-02
First moment .... = 7.81168E-04
Second moment .... = 2.52635E-04
Hmo .... = .228
Reflection coefficient .... = .124

Middle column

Test Identification .... : b750-03

Reflection Coefficients for Data file ...... : b750-03.wrl

Water Depth (Feet) .... = 4.00
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.54945E-01
Maximum smoothed value .... = 2.50146E+00
First moment .... = 3.06552E-02
Second moment .... = 8.49606E-03
Hmo .... = 1.575
Tp .... = 7.111

*** Reflected wave energy ***
Total smoothed energy .... = 2.93269E-03
Maximum smoothed value .... = 5.52064E-02
First moment .... = 4.40137E-04
Second moment .... = 9.13930E-05
Hmo .... = .217
Reflection coefficient .... = .138

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.23473E-01
Maximum smoothed value .... = 2.11740E+00
First moment .... = 3.30788E-02
Second moment .... = 1.19722E-02
Hmo .... = 1.406
Tp .... = 2.306

*** Reflected wave energy ***
Total smoothed energy .... = 7.50074E-03
Maximum smoothed value .... = 2.67728E-01
First moment .... = 3.72034E-02
Second moment .... = 2.21951E-03
Hmo .... = .346
Reflection coefficient .... = .246

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.13785E-01
Maximum smoothed value .... = 2.57210E+00
First moment .... = 1.77544E-02
Second moment .... = 3.58409E-03
Hmo .... = 1.349
Tp .... = 2.381

*** Reflected wave energy ***
Total smoothed energy .... = 4.01401E-03
Maximum smoothed value .... = 2.46701E-01
First moment .... = 8.00750E-04
Second moment .... = 1.93843E-04
Hmo .... = .253
Reflection coefficient .... = .188

Right column

Test Identification .... : b750-03

Run Identification .... : b750-03

Raw Data File .... : b750-03.wrl
Date of test .... : 21-FEB-1992 09:16:01

**** Wave Gauge 4 Summary ****
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.11239E-01
Maximum smoothed value .... = 4.71024E+00
First moment .... = 5.60923E-02
Second moment .... = 2.11503E-02
Hmo .... = 1.838
Tp .... = 7.111

**** Current Meter Summary Seaward Gauge ****
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.88691E+00
Maximum smoothed value .... = 5.62667E+01
First moment .... = 3.58618E-01
Second moment .... = 8.77760E-02
Umo .... = 5.495
Tp .... = 7.111

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.87828E-02
Maximum smoothed value .... = 3.63391E-01
First moment .... = 4.15419E-03
Second moment .... = 1.61372E-03
Umo .... = .548
Tp .... = 7.014

**** Current Meter Summary Leeward Gauge ****
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.10828E+00
Maximum smoothed value .... = 5.33530E+01
First moment .... = 4.74279E-01
Second moment .... = 1.45458E-01
Umo .... = 5.808
Tp .... = 7.111

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.64122E-02
Maximum smoothed value .... = 2.02173E-01
First moment .... = 5.05181E-03
Second moment .... = 2.41966E-03
Umo .... = .512
Tp .... = 7.211

Test Identification : b750-05

Reflection Coefficients for Data file : b750-05.wrl

Water Depth (Feet) = 4.00
Data Channels used to compute Coefficients = 1   2   3
Distance between channels in feet = 7.00 2.50

*** Smoothed spectral densities for DI. = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 2.16078E-01
Maximum smoothed value = 1.83208E+00
First moment = 3.18793E-02
Second moment = 6.82937E-03
Hmo = 1.859
Tp = 7.529

*** Reflected wave energy ***
Total smoothed energy = 5.91475E-03
Maximum smoothed value = 3.72393E-02
First moment = 1.22664E-03
Second moment = 3.46943E-04
Hmo = .308
Reflection coefficient = .165

*** Smoothed spectral densities for DI. = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 9.40776E-02
Maximum smoothed value = 4.99309E-01
First moment = 2.42098E-02
Second moment = 9.55146E-03
Hmo = 1.227
Tp = 3.765

*** Reflected wave energy ***
Total smoothed energy = 4.65813E-03
Maximum smoothed value = 2.26905E-02
First moment = 2.21898E-03
Second moment = 1.24519E-03
Hmo = .273
Reflection coefficient = .223

*** Smoothed spectral densities for DI. = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 2.30954E-01
Maximum smoothed value = 1.82035E+00
First moment = 3.06749E-02
Second moment = 5.41182E-03
Hmo = 1.922
Tp = 7.529

*** Reflected wave energy ***
Total smoothed energy = 5.69194E-03
Maximum smoothed value = 7.71792E-02
First moment = 9.91406E-04
Second moment = 2.33620E-04
Hmo = .302
Reflection coefficient = .157

Test Identification : b750-05

Reflection Coefficients for Data file : b750-05.wrl

Water Depth (Feet) = 4.00
Data Channels used to compute Coefficients = 5   6   7
Distance between channels in feet = 7.00 3.00

*** Smoothed spectral densities for DI. = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 1.38913E-01
Maximum smoothed value = 6.50315E-01
First moment = 3.14047E-02
Second moment = 9.20240E-03
Hmo = 1.491
Tp = 7.111

*** Reflected wave energy ***
Total smoothed energy = 4.93683E-03
Maximum smoothed value = 2.73284E-02
First moment = 9.93294E-04
Second moment = 2.69346E-04
Hmo = .281
Reflection coefficient = .189

*** Smoothed spectral densities for DI. = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 1.03091E-01
Maximum smoothed value = 4.22839E-01
First moment = 2.69388E-02
Second moment = 9.51020E-03
Hmo = 1.278
Tp = 2.246

*** Reflected wave energy ***
Total smoothed energy = 7.12256E-03
Maximum smoothed value = 1.55374E-01
First moment = 3.30991E-03
Second moment = 1.79843E-03
Hmo = .338
Reflection coefficient = .264

*** Smoothed spectral densities for DI. = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 1.09184E-01
Maximum smoothed value = 7.17119E-01
First moment = 1.73515E-02
Second moment = 3.53413E-03
Hmo = 1.322
Tp = 2.612

*** Reflected wave energy ***
Total smoothed energy = 5.66282E-03
Maximum smoothed value = 6.48870E-02
First moment = 1.05945E-03
Second moment = 2.41505E-04
Hmo = .301
Reflection coefficient = .228

Test Identification : b750-05

Run Identification : b750-05

Raw Data File : b750-05.wrl
Date of test : 21-FEB-1992   09:54:50

***** Wave Gauge 4 Summary *****
*** Total Wave Energy ***
Number of points in boxcar smooth = 13
Total smoothed energy = 2.89967E-01
Maximum smoothed value = 1.30947E+00
First moment = 8.83369E-02
Second moment = 4.02711E-02
Hmo = 2.154
Tp = 6.737

***** Current Meter Summary Seaward Gauge *****
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth = 13
Total smoothed energy = 2.57309E+00
Maximum smoothed value = 1.72325E+01
First moment = 5.22093E-01
Second moment = 1.44777E-01
Umo = 6.416
Tp = 7.111

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth = 13
Total smoothed energy = 2.63363E-01
Maximum smoothed value = 1.27014E-01
First moment = 6.31664E-03
Second moment = 2.41730E-03
Umo = .649
Tp = 7.111

***** Current Meter Summary Leeward Gauge *****
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth = 13
Total smoothed energy = 2.55765E+00
Maximum smoothed value = 1.50497E+01
First moment = 6.10926E-01
Second moment = 2.08423E-01
Umo = 6.397
Tp = 6.737

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth = 13
Total smoothed energy = 2.24329E-02
Maximum smoothed value = 6.54434E-02
First moment = 7.20100E-03
Second moment = 3.45155E-03
Umo = .599
Tp = 7.111

**** Wave Gauge 4 Summary ****
*** Total Wave Energy ***

Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.99410E-01
Maximum smoothed value .... = 3.96312E+00
First moment .... = 6.24982E-02
Second moment .... = 2.53720E-02
Hmo .... = 1.786
Tp .... = 5.626

**** Current Meter Summary Seaward Gauge ****
*** Horizontal Current Energy Channel 8 ***

Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.52932E+00
Maximum smoothed value .... = 4.47303E+01
First moment .... = 3.46721E-01
Second moment .... = 9.54350E-02
Uno .... = 4.947
Tp .... = 5.626

*** Vertical Current Energy Channel 9 ***

Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.51397E-02
Maximum smoothed value .... = 2.05756E-01
First moment .... = 4.06640E-03
Second moment .... = 1.79154E-03
Uno .... = .492
Tp .... = 5.953

**** Current Meter Summary Leeward Gauge ****
*** Horizontal Current Energy Channel 10 ***

Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.70463E+00
Maximum smoothed value .... = 4.41856E+01
First moment .... = 4.26216E-01
Second moment .... = 1.32285E-01
Uno .... = 5.222
Tp .... = 5.626

*** Vertical Current Energy Channel 11 ***

Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.14145E-02
Maximum smoothed value .... = 1.86753E-01
First moment .... = 3.18325E-03
Second moment .... = 1.47009E-03
Uno .... = .427
Tp .... = 5.753

Test Identification .... : b113-01

Reflection Coefficients for Data file .... : b113-01.wrl

Water Depth (Feet) .... = 4.00
Data Channels used to compute Coefficients ... = 5 6 7
Distances between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 2.17527E-01
Maximum smoothed value .... = 3.25501E+00
First moment .... = 5.99175E-02
Second moment .... = 2.06517E-02
Hmo .... = 1.866
Tp .... = 2.860

*** Reflected wave energy ***
Total smoothed energy .... = 1.44957E-02
Maximum smoothed value .... = 5.17660E-01
First moment .... = 5.71410E-03
Second moment .... = 2.47149E-03
Hmo .... = .482
Reflection coefficient .... = .258   <------
*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.14346E-01
Maximum smoothed value .... = 3.22091E+00
First moment .... = 2.61843E-02
Second moment .... = 7.30822E-03
Hmo .... = 1.353
Tp .... = 2.860

*** Reflected wave energy ***
Total smoothed energy .... = 2.85380E-03
Maximum smoothed value .... = 4.74953E-02
First moment .... = 1.10160E-03
Second moment .... = 4.80743E-04
Hmo .... = .214
Reflection coefficient .... = .158   <------
*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.62302E-01
Maximum smoothed value .... = 3.70464E+00
First moment .... = 3.62625E-02
Second moment .... = 9.34165E-03
Hmo .... = 1.611
Tp .... = 2.860

*** Reflected wave energy ***
Total smoothed energy .... = 1.79269E-03
Maximum smoothed value .... = 5.77144E-02
First moment .... = 2.62390E-04
Second moment .... = 4.61859E-05
Hmo .... = .169
Reflection coefficient .... = .105   <------

Test Identification .... : b113-01

Reflection Coefficients for Data file .... : b113-01.wrl

Water Depth (Feet) .... = 4.00
Data Channels used to compute Coefficients ... = 1 2 3
Distances between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 2.15343E-01
Maximum smoothed value .... = 5.27237E+00
First moment .... = 4.19734E-02
Second moment .... = 1.35368E-02
Hmo .... = 1.857
Tp .... = 5.636

*** Reflected wave energy ***
Total smoothed energy .... = 8.78715E-03
Maximum smoothed value .... = 3.20468E-01
First moment .... = 3.64702E-03
Second moment .... = 1.57655E-03
Hmo .... = .375
Reflection coefficient .... = .202   <------
*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 6.84681E-02
Maximum smoothed value .... = 1.41093E+00
First moment .... = 1.66443E-02
Second moment .... = 5.36742E-03
Hmo .... = 1.046
Tp .... = 2.860

*** Reflected wave energy ***
Total smoothed energy .... = 1.84025E-03
Maximum smoothed value .... = 3.55144E-02
First moment .... = 9.72220E-04
Second moment .... = 5.34197E-04
Hmo .... = .172
Reflection coefficient .... = .164   <------
*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth ...... = 13
Total smoothed energy .... = 1.83457E-01
Maximum smoothed value .... = 5.30715E+00
First moment .... = 2.98687E-02
Second moment .... = 5.96948E-03
Hmo .... = 1.713
Tp .... = 5.636

*** Reflected wave energy ***
Total smoothed energy .... = 1.81373E-03
Maximum smoothed value .... = 4.95187E-02
First moment .... = 4.54977E-04
Second moment .... = 1.26121E-04
Hmo .... = .170
Reflection coefficient .... = .099   <------

Test Identification .... : b113-02

Reflection Coefficients for Data file ...... : b113-02.wrl

Water Depth (Feet) .... = 4.00
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.70099E-01
Maximum smoothed value .... = 7.01204E+00
First moment .... = 9.13404E-02
Second moment .... = 3.14045E-02
Hmo .... = 2.443
Tp .... = 5.626

*** Reflected wave energy ***
Total smoothed energy .... = 2.89928E-02
Maximum smoothed value .... = 1.09393E+00
First moment .... = 1.20398E-02
Second moment .... = 5.27212E-03
Hmo .... = .680
Reflection coefficient .... = .278

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.53547E-01
Maximum smoothed value .... = 2.27541E+00
First moment .... = 4.79208E-02
Second moment .... = 1.98944E-02
Hmo .... = 1.567
Tp .... = 2.860

*** Reflected wave energy ***
Total smoothed energy .... = 1.04696E-02
Maximum smoothed value .... = 2.49835E-01
First moment .... = 5.99964E-03
Second moment .... = 3.57992E-03
Hmo .... = .411
Reflection coefficient .... = .262

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.64999E-01
Maximum smoothed value .... = 6.99308E+00
First moment .... = 4.63107E-02
Second moment .... = 9.85600E-03
Hmo .... = 2.059
Tp .... = 5.626

*** Reflected wave energy ***
Total smoothed energy .... = 4.78102E-03
Maximum smoothed value .... = 1.20543E-01
First moment .... = 1.13713E-03
Second moment .... = 3.05431E-04
Hmo .... = .277
Reflection coefficient .... = .134

Test Identification .... : b113-02

Reflection Coefficients for Data file ...... : b113-02.wrl

Water Depth (Feet) .... = 4.00
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.08277E-01
Maximum smoothed value .... = 3.85846E+00
First moment .... = 5.51607E-02
Second moment .... = 1.79764E-02
Hmo .... = 1.825
Tp .... = 2.860

*** Reflected wave energy ***
Total smoothed energy .... = 1.85930E-02
Maximum smoothed value .... = 6.49470E-01
First moment .... = 7.29812E-03
Second moment .... = 3.13933E-03
Hmo .... = .545
Reflection coefficient .... = .299

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.11748E-01
Maximum smoothed value .... = 3.45515E+00
First moment .... = 2.48461E-02
Second moment .... = 7.09732E-03
Hmo .... = 1.337
Tp .... = 2.860

*** Reflected wave energy ***
Total smoothed energy .... = 3.47418E-03
Maximum smoothed value .... = 4.41006E-02
First moment .... = 1.39792E-03
Second moment .... = 6.55741E-04
Hmo .... = .236
Reflection coefficient .... = .176

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.81495E-01
Maximum smoothed value .... = 4.68810E+00
First moment .... = 4.30182E-02
Second moment .... = 1.14811E-02
Hmo .... = 1.704
Tp .... = 2.860

*** Reflected wave energy ***
Total smoothed energy .... = 3.51087E-03
Maximum smoothed value .... = 8.05515E-02
First moment .... = 6.64455E-04
Second moment .... = 1.53404E-04
Hmo .... = .237
Reflection coefficient .... = .139

Test Identification .... : b113-02

Run Identification .... : b113-02

Raw Data File .... : b113-02.wrl
Date of test .... : 21-FEB-1992 10:56:35

***** Wave Gauge 4 Summary *****
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 3.2995E-01
Maximum smoothed value .... = 4.6943E+00
First moment .... = 1.15050E-01
Second moment .... = 5.67603E-02
Hmo .... = 2.273
Tp .... = 5.626

***** Current Meter Summary Seaward Gauge *****
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.23583E+00
Maximum smoothed value .... = 5.61608E-01
First moment .... = 5.7818E-01
Second moment .... = 1.89810E-01
Hmo .... = 5.981
Tp .... = 5.626

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.5897E-02
Maximum smoothed value .... = 3.83029E-01
First moment .... = 7.27599E-03
Second moment .... = 3.17417E-03
Hmo .... = .644
Tp .... = 5.953

***** Current Meter Summary Leeward Gauge *****
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.20201E+00
Maximum smoothed value .... = 4.84075E+00
First moment .... = 6.20072E-01
Second moment .... = 2.21861E-01
Hmo .... = 5.936
Tp .... = 5.565

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.69743E-02
Maximum smoothed value .... = 2.18947E-01
First moment .... = 5.39119E-03
Second moment .... = 2.57342E-03
Hmo .... = .321
Tp .... = 2.860

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.22507E-01
Maximum smoothed value .... = 1.41071E+00
First moment .... = 2.17599E-02
Second moment .... = 5.63765E-03
Hmo .... = 1.400
Tp .... = 5.953

*** Reflected wave energy ***
Total smoothed energy .... = 3.06407E-03
Maximum smoothed value .... = 5.84223E-02
First moment .... = 9.80241E-04
Second moment .... = 3.76764E-04
Hmo .... = .221
Reflection coefficient .... = .158   <------

*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 5.56631E-02
Maximum smoothed value .... = 2.52969E-01
First moment .... = 1.26577E-02
Second moment .... = 4.59042E-03
Hmo .... = .944
Tp .... = 4.231

*** Reflected wave energy ***
Total smoothed energy .... = 2.56071E-03
Maximum smoothed value .... = 2.64992E-02
First moment .... = 1.24308E-03
Second moment .... = 7.39257E-04
Hmo .... = .202
Reflection coefficient .... = .214   <------

*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.13526E-01
Maximum smoothed value .... = 1.42264E+00
First moment .... = 1.94360E-02
Second moment .... = 4.19887E-03
Hmo .... = 1.348
Tp .... = 5.953

*** Reflected wave energy ***
Total smoothed energy .... = 2.38669E-03
Maximum smoothed value .... = 2.30778E-02
First moment .... = 6.10515E-04
Second moment .... = 1.82442E-04
Hmo .... = .195
Reflection coefficient .... = .145   <------

Test Identification .... : b113-03

Reflection Coefficients for Data file .... : b113-03.wrl

Water Depth (Feet) .... = 4.00
Data Channels used to compute Coefficients ... = 5   6   7
Distances between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.76023E-02
Maximum smoothed value .... = 8.28194E-01
First moment .... = 2.03445E-02
Second moment .... = 5.70714E-03
Hmo .... = 1.250
Tp .... = 5.953

*** Reflected wave energy ***
Total smoothed energy .... = 2.91152E-03
Maximum smoothed value .... = 7.20003E-02
First moment .... = 9.41318E-04
Second moment .... = 3.62670E-04
Hmo .... = .216
Reflection coefficient .... = .173   <------

*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 6.26340E-02
Maximum smoothed value .... = 3.37033E-01
First moment .... = 1.26689E-02
Second moment .... = 3.90533E-03
Hmo .... = 1.001
Tp .... = 5.120

*** Reflected wave energy ***
Total smoothed energy .... = 1.91169E-03
Maximum smoothed value .... = 1.65543E-02
First moment .... = 8.10770E-04
Second moment .... = 4.32481E-04
Hmo .... = .175
Reflection coefficient .... = .175   <------

*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 8.76835E-02
Maximum smoothed value .... = 8.47083E-01
First moment .... = 1.71136E-02
Second moment .... = 4.06916E-03
Hmo .... = 1.184
Tp .... = 5.953

*** Reflected wave energy ***
Total smoothed energy .... = 2.08710E-03
Maximum smoothed value .... = 4.25358E-02
First moment .... = 5.37385E-04
Second moment .... = 1.61153E-04
Hmo .... = .183
Reflection coefficient .... = .154   <------

Test Identification .... : b113-03

Run Identification .... : b113-03

Raw Data File .... : b113-03.wrl
Date of test .... : 21-FEB-1992 11:31:57

***** Wave Gauge 4 Summary *****
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.22962E-01
Maximum smoothed value .... = 1.14511E+00
First moment .... = 3.57304E-02
Second moment .... = 1.39987E-02
Hmo .... = 1.403
Tp .... = 5.953

**** Current Meter Summary Seaward Gauge *****
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.59866E-01
Maximum smoothed value .... = 1.30963E+01
First moment .... = 2.15589E-01
Second moment .... = 6.06302E-02
Umo .... = 3.919
Tp .... = 5.953

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.37376E-03
Maximum smoothed value .... = 5.52317E-02
First moment .... = 2.47677E-03
Second moment .... = 1.10317E-03
Umo .... = .387
Tp .... = 6.024

***** Current Meter Summary Leeward Gauge *****
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.02481E+00
Maximum smoothed value .... = 1.25111E+01
First moment .... = 2.34435E-01
Second moment .... = 7.04596E-02
Umo .... = 4.049
Tp .... = 5.953

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.98228E-03
Maximum smoothed value .... = 5.84117E-02
First moment .... = 2.59527E-03
Second moment .... = 1.19438E-03
Umo .... = .400
Tp .... = 5.953

Column 1

Test Identification .... : b113-04

Reflection Coefficients for Data file .... : b113-04.wrl

Water Depth (Feet) .... = 4.00
Data Channels used to compute Coefficients ... = 1 2 3
Distance between channels in feet .... = 7.00 2.50

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.14657E-01
Maximum smoothed value .... = 2.36850E+00
First moment .... = 3.98729E-02
Second moment .... = 1.09311E-02
Umo .... = .853
Tp .... = 6.095

*** Reflected wave energy ***
Total smoothed energy .... = 9.15413E-03
Maximum smoothed value .... = 1.50734E-01
First moment .... = 3.04078E-03
Second moment .... = 1.18302E-03
Umo .... = .303
Reflection coefficient .... = .207 <------
*** Smoothed spectral densities for DL = 2.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.40543E-02
Maximum smoothed value .... = 5.62926E-01
First moment .... = 2.36065E-02
Second moment .... = 9.11205E-03
Umo .... = 1.227
Tp .... = 2.860

*** Reflected wave energy ***
Total smoothed energy .... = 6.99560E-03
Maximum smoothed value .... = 3.53722E-02
First moment .... = 2.99959E-03
Second moment .... = 1.69319E-03
Umo .... = .325
Reflection coefficient .... = .265 <------
*** Smoothed spectral densities for DL = 9.5 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.89693E-01
Maximum smoothed value .... = 2.38435E+00
First moment .... = 3.20110E-02
Second moment .... = 6.89006E-03
Umo .... = 1.742
Tp .... = 6.095

*** Reflected wave energy ***
Total smoothed energy .... = 6.16577E-03
Maximum smoothed value .... = 1.03675E-01
First moment .... = 1.61058E-03
Second moment .... = 4.96915E-04
Umo .... = .314
Reflection coefficient .... = .180 <------

Column 2

Test Identification .... : b113-04

Reflection Coefficients for Data file .... : b113-04.wrl

Water Depth (Feet) .... = 4.00
Data Channels used to compute Coefficients ... = 5 6 7
Distance between channels in feet .... = 7.00 3.00

*** Smoothed spectral densities for DL = 7.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.33564E-01
Maximum smoothed value .... = 1.14402E+00
First moment .... = 3.42704E-02
Second moment .... = 1.02791E-02
Umo .... = 1.567
Tp .... = 6.095

*** Reflected wave energy ***
Total smoothed energy .... = 6.59499E-03
Maximum smoothed value .... = 1.21272E-01
First moment .... = 2.23283E-03
Second moment .... = 8.77485E-04
Umo .... = .325
Reflection coefficient .... = .207 <------
*** Smoothed spectral densities for DL = 3.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 9.97374E-02
Maximum smoothed value .... = 6.32508E-01
First moment .... = 2.32145E-02
Second moment .... = 8.13102E-03
Umo .... = 1.263
Tp .... = 2.829

*** Reflected wave energy ***
Total smoothed energy .... = 4.96216E-03
Maximum smoothed value .... = 8.47948E-02
First moment .... = 2.36232E-03
Second moment .... = 1.33298E-03
Umo .... = .282
Reflection coefficient .... = .224 <------
*** Smoothed spectral densities for DL = 10.0 Ft. ***
*** Incident wave energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.32570E-01
Maximum smoothed value .... = 1.16416E+00
First moment .... = 2.61605E-02
Second moment .... = 6.36290E-03
Umo .... = 1.456
Tp .... = 6.095

*** Reflected wave energy ***
Total smoothed energy .... = 4.87191E-03
Maximum smoothed value .... = 1.6893E-01
First moment .... = 1.29737E-03
Second moment .... = 4.03265E-04
Umo .... = .279
Reflection coefficient .... = .192 <------

Column 3

Test Identification .... : b113-04

Run Identification .... : b113-04

Raw Data File .... : b113-04.wrl
Date of test .... : 21-FEB-1992 12:19:43

***** Wave Gauge 4 Summary *****
*** Total Wave Energy ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.99109E-01
Maximum smoothed value .... = 1.76641E+00
First moment .... = 5.84489E-02
Second moment .... = 2.42571E-02
Umo .... = 1.785
Tp .... = 6.095

***** Current Meter Summary Seaward Gauge *****
*** Horizontal Current Energy Channel 8 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.60846E+00
Maximum smoothed value .... = 1.98576E+01
First moment .... = 3.53268E-01
Second moment .... = 1.03000E-01
Umo .... = 5.073
Tp .... = 6.095

*** Vertical Current Energy Channel 9 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 2.24606E-02
Maximum smoothed value .... = 1.11376E-01
First moment .... = 5.71914E-03
Second moment .... = 2.61594E-03
Umo .... = .599
Tp .... = 6.095

***** Current Meter Summary Leeward Gauge *****
*** Horizontal Current Energy Channel 10 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.67840E+00
Maximum smoothed value .... = 1.90316E+01
First moment .... = 3.85980E-01
Second moment .... = 1.19806E-01
Umo .... = 5.182
Tp .... = 6.095

*** Vertical Current Energy Channel 11 ***
Number of points in boxcar smooth .... = 13
Total smoothed energy .... = 1.83074E-02
Maximum smoothed value .... = 6.55681E-02
First moment .... = 4.75254E-03
Second moment .... = 2.27128E-03
Umo .... = .541
Tp .... = 6.169